ILLUMINE Delivered Projects

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"Serving IT with Excellency"

The current document is a project portfolio describing some of the most important projects delivered by Illumine Consulting in the previous years.

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Software Products

DSLAM Test Suite .

DSLAM Tester is a flexible test suite that can perform a set of operations on a DSL/Voice port checking the last mile performance of offered DSL/VOICE service. Use the platform in order to:

- Test the DSLAM ports using MELT/SELT test
- Perform several DSL/Voice operations like port Retrain, Reset, On/off
- Collect DSL/Voice statistics
- Constantly Monitor DSL/Voice performance on mission critical circuits
- Create alarms and notifications on DSL subscriber profile alterations and re provisioning
- Gather and maintain historic port data
- Create custom reports

DSLAM tester is based on J2EE standards, build on a modular, true SOA implementation. What is actually missing so that DSLAM tester will fit in your infrastructure is:

- Marshaling of your DSLAM operations results to the platform, an easy task that can be carried out withing some development hours
- Load your organization's DSLAM/BRAS topology into DSLAM Tester Backend.
- Integrate   DSLAM Tester with your organization's security and authentication scheme (LDAP/AD)

Technologies used: J2EE, JBOSS 5, MySQL, Hibernate, jasper reports.

Supported Platforms: Windows, Unix Like Systems (Red Hat, SuSe)

JBoss Provisioning Manager.

Use this platform to create a single point of multiple legacy applications based on J2EE standards. The basic idea is that this management application is a scheduler that works under JBoss Application Server. Users can develop their own Services in the classic Managed Bean (MBean) format. MBeans are created as descendants of Demonized Threads having this way all the functionality to deliver execution of DB Stored Procedures, System Batch Batch Jobs, FTP Client Jobs and a lot of other schedulable tasks. The execution of all Worker classes is directed by a Management MBean (Scheduler) who also keeps a report of the threads carrying out each of the Workers.

Technologies used: JAVA, XML, J2EE, JNDI, JBoss

Supported Platforms: Windows, Unix Like Systems (Red Hat, SuSe)

Logguard Log Analyzer and Events Manager (www.logguard.com)

Logguard is the piece that completes the puzzle in nowdays IT infrastructure. Logguard delivers log file parsing and analysis as long as Event dispatching utilizing several application – level protocols like SMPP, SNMP, J2EE – SOAP J3, SMTP, HTTP, HTTPs, FTP, JMS - JMX and JDBC.

Logguard is a component based – SOA Oriented platform that stands on top of a classic JAVA Application Server or a modern Java ESB. Logguard exposes WEB Services that are consumed by distributed Logguard agents whose task is to parse and analyze log files produced by your IT infrastructure. When a WEB Service is activated, the event is stored in the Logguard database and also dispatched to its final destination using one of the application protocols mentioned earlier (SMPP, SNMP, J2EE – SOAP J3, SMTP, HTTP, HTTPs, FTP, JMS - JMX and JDBC). For more information check on http://www.logguard.com

Technologies used: JAVA, XML, J2EE, JNDI, Jboss, MySQL or ORACLE

Supported Platforms: Windows, Unix Like Systems (Red Hat, SuSe)

JET Code Engine.

This application is used in order to assist Code Generation for several C++ projects. The developer defines in XML the records' structures, their data source and the memory data structure they will be loaded to. The application creates the code to support the development of those components.

The platform creates pure ANSI C++ classes that bind to components of STL library. JET engine creates clear source code without hiding anything from the developer and without providing only the binary libraries.

JET Engine can be adapted to be used in projects that demand often code updates. In order to support versioning, JET maintains a small proprietary database, but CVS can be used instead.

JET Engine supports several complex data structures like Hash Maps, Tries, Trees, B-Trees, AVL-Trees, Complete Networks and Graphs.

Technologies used: JAVA, XML, ANSI C++

Supported Platforms: SUN Solaris, HP UX 11 /aCC, Red Hat Linux / gcc/g++.

Generic Trace Scheduler.

Trace Scheduler assists the need of finding a generic way to design, implement and deploy complex systems of logical flows. A flow is designed to brake down to several tasks that inherit a common programmable interface, making their implementation a lot easier, saving your time.

Trace Scheduler is a platform that can be used in order to support several applications like Software Mediation, Data Gathering and Transformations. The platform is written in Java with sub layer support from Oracle 9i and accepts XML configuration. The tasks are configured parametrically according to your projects needs and can be FTP collection agents, Generic Data Converters, SNTP Agents to assist time based mediation, Database Loaders, Database Store Procedure Runners,

External Batch Execution. The reporting of this platform consists of Oracle DBMS Output report of all tasks, ASCII Files or XML generated from each specific task. Execution of tasks can be assigned to Threads (Hyperthreads an Green Threads Support) or Processes. Execution plan of a task can be complete parallel, sequential, periodic or transit. A task can be configured to generate alarms that can be sent via email or SMS if you have SMS.

Technologies used: JAVA, XML, ORACLE 9i, ORACLE WORKS, MSVS6 C++

Supported Platforms: MS Windows, Red Hat Linux, HP UX 11, SUN Solaris

TAP Converter.

TAPv3.11-3.10 CDR converter from TAP v3.11,3.10 ASN1 to ASCII. The application performs data filtering Charges, TAX and discount calculations, IMSI to MSISDN mapping and other features.

Technologies used: HP UX 11.00, HP's aCC C++.

Supported Platforms: MS Windows, Red Hat Linux, HP UX 11, SUN Solaris

SMPP Dispatcher Gateway.

Complete SMS solution for SMS Gateway to SMS-C. The solution bridges J2EE to SMPP, HTTP to SMPP, HTTPs to SMPP for sending SMS and requesting delivery reports. The solution also includes API in Java and C#.

Technologies used: Java, J2EE, HTTP, SMPP, JBoss, ORACLE 10g, C#

Supported Platforms: MS Windows, Red Hat Linux, HP UX 11, SUN Solaris

Log Analyzer Tool.

This application gathers log files and parses each of them isolating only the required information in order to generate special reports based on logged results. In at second stage, the outcome of the parsing is loaded on the Oracle DBMS and a number of calculations are performed. Data filtering is based on XML parameterized parsers. Calculations are based on XML configured rules which are distinct per processing cycle.

Technologies used: Java, Hibernate, ORACLE 10g

Supported Platforms: MS Windows, Red Hat Linux, HP UX 11, SUN Solaris

Delivered Custom Software Solutions

Those are projects delivered as custom solutions for the dominant Greek Telecommunications vendors and carriers.

IVR Dispatcher. Custom solution implementing two side bridging from IVR to Back-End and from Back-End to IVR. The proposed solution includes library API in JAVA.

Technologies used: Java, Apache Tomcat, ORACLE 10g

MIB Statistics Monitor. This was an OSS project that dealt with monitoring of MIB counters issued by an IN Prepaid Platform. The application periodically gathers the MIB counters and placed them to a statistics database.

Technologies used: HP Open Call , SDL, ORACLE 9i

Intelligent Networks Rating Engine. A pulse rating software that performs CDR tariff splitting according to time based and routing based tariff schemes. The CDRs were taken from the IN Platform and the reference data from the database supporting the IN Platform.

Technologies used: HP Open Call , ORACLE 9i

Intelligent Networks Soft Mediation Device. This project was relative with gathering and mediation of several IN CDRs as they come from the IN platform (Prepaid, Premium Rate, Free Phone, Split Call) and also from the Switch (Cirpack). Both CDRs were correlated and merged to a complete rated CDR , ready to enter the billing cycle.

Technologies used: JAVA, XML, ORACLE 9i, MSVS6 C++

BSCS Billing Revenue. Project dealt with estimation of CDR loss during rating-billing cycle in BSCS Billing System. Our task was to prepare parsers and translators for all BSCS log files in order to count all CDRs /UDRs/RDRs that were discarded in every BSCS billing and rating phase.

Technologies used: JAVA, XML, ORACLE 9i, MSVS6 C++

Prepaid, Recharges and Incoming Data Gather: Project dealt with gathering and validation EDRs and CDRs prepared by Logica's AETHOS Prepaid Platform. The target of this project was to assist the existing Data Warehouse infrastructure for prepaid mobile telephony.

Technologies used: HP UX 11.00, Oracle 8i, HP's aCC C++.

SS7 Call Editor: A project dealt with altering CDRs prepared by HP's AcceSS7 platform in order to test the network's integrity without changing the actual cross trunk topology. The target of this project was to build a complete and integrated product equipped with a GUI to assist the network operator to alter CDR data files in complex ways. The altered traffic would be reinserted to the billing cycle in order to check for the effects of changes.

Technologies used: HP UX 10.00, HP's aCC C++, Java 1.1.

UDR Stream Processor: An application that altered and filtered out UDRs form billing system, according to several selection criteria. The aim of the project was to support the existing infrastructure of the Fraud Management Tool.

Technologies used: Compaq Tru 64 cxx C++.

NOKIA DX200 Mediation: An application used in order to parse and translate CDRs prepared by NOKIA's DX200 MSC/HLR product. The aim of the project was to support the existing infrastructure of the Fraud Management Tool.

Technologies used: Red Hat Linux A/S 3, GNU C++ gcc.

BCCS Service Pre-feeders for HP FMS: An application used in order to parse and translate Phones and Customer Accounts updates by Intracom's BCCS Billing System. The aim of the project was to support the existing infrastructure of the Fraud Management Tool.

Technologies used: HP UX 11.00, HP's aCC C++.

Geneva Pre-feeders for HP FMS: An application used in order to parse and translate Phones and Customer Accounts updates prepared by Geneva Billing System. The aim of the project was to support the existing infrastructure of the Fraud Management Tool.

Technologies used: HP UX 11.00, HP's aCC C++.

SIEMENS Starhtodatten converter for HP FMS: A filter to convert Starhtodatten CDRs in ASCII standard length records in order to assist the existing FM infrastructure.

Technologies used: Compaq UNIX, C++.

SIEMENS *OSS ADMOSS converter:* A filter to convert SIEMENS SS7 CDRs in in ASCII standard length records in order to assist the existing FM infrastructure..

Technologies used: HP UX 11.00, HP's aCC C++.

Point Collection Agent for IP Billing. Development of agents that gather billable volume over IP based networks.

Technologies used: Red Hat Linux A/S 3, GNU C++ gcc, TCP Dump Libraries, PCAP libraries.

Central Collection Agent for IP Billing. Development of distributed agents that gather traffic files from Points of Presents. The Collection Agents are set to report traffic and usage to a centralized authority responsible to collect all traffic.

Technologies used: Red Hat Linux A/S 3, GNU C++ gcc, AT&T's OMNI CORBA.

Central Controller Agent for Point Agent. Development of centralized agents that communicate with Point Collection Agents in order to apply remote control, and report to NMS Monitor Tool.

Technologies used: Windows 2000, Java SDK 1.4.4, CORBA.

Production Line Environmental Metrics. Development of distributed agents n interfacing with sensors in order to gather Humidity, Temperature, Toxic Leak, Electromagnetic field intension data from several points of a Industrial Production Line and warn the alarm system of the factory.

Technologies used: Linux, OniORB CORBA, C/C++

Cross Broker Translation: Development of a translator in order to translate classic DCOM to native CORBA calls. This project covered the translation of only the basic DCOM value marshaling and de-marshaling to CORBA calls.

Technologies used: *Server* C++ , CORBA: IONA's ORBIX, *Client* Delphi, MS DCOM

SNMP Monitor. Development of a centralized application that communicates using SNMP with network elements and reports several events like operational status, load balancing. This was a custom tool for some functionality that had to be developed beyond classic SNMP and dealt with remote management of specific DCOM applications.

Technologies used: Windows 2000, Win NT4.0 Java SDK 1.4.4, Oracle 8.

Orders Chain over Serial Transmission: Development of serial port passive listener that could translate ESC/POS streams from several Cash Points over RS232 PTP links. Application translated data streams received from RS232 interface in the format of ESC/POS to ASCII text capable to be loaded on ORACLE 9i DB.

Technologies used: SCO Open Server, GNU C cc,