Offshore System Engineering: An Introduction

I write to you as Chief Technology Officer (CTO) of Internet Technologies Ltd (nettech^{TM}), and to introduce our products and services to International clients. The company provides high quality, competitively priced, distributed/remote software systems engineering to a selection of clients, in and out of the base country. Initially founded to provide equity-for-service, outsourced IT development for Internet start-ups, the business plan for the company was revised following the decline in the IT industry and bursting of the Internet bubble.

In that time, the company took time to invest in the development of component libraries for enterprise systems, with the intention of introducing these as efficiencies in later projects. With new optimism and expected recovery in the industry this year, or the next, we would like to extend our services outside of the base country, to our originally intended clients.

I therefore take pleasure in enclosing a CD with detailed information about the company, as well as a number of our Clients, Products, Projects and Services. Some, such as the eMediaDirectory, provide valuable and simple functions at a fraction of the cost of bloated alternatives, and all of the features and services are delivered within a highly flexible/configurable web context. By using open protocols, best practices in engineering, and a division of presence between Europe and Africa, we manage to offer the quality of systems designed in Europe and the cost of systems developed in Africa.

It had been my intention to send you a CD with a working copy of our Media Management product, eMediaDirectory, which demonstrates the power of some of our components. However, since the product is web based and data driven, there is a need for configuration, which would require a demonstration by one of our consultants. In addition to this, because the product is based on an Interpreted Language, and we have not signed any legally binding non-disclosure agreement, I am sure you will agree that it is not expedient to give out copyrighted material.

A lot of value accrues from the tools that we use, the way in which we have constructed our tools, the approach to system engineering, and our client management/interfacing. We believe that businesses exposed to our systems will build quickly their confidence levels on perusal of our processing, checks, and deliverables. On the following page, an overview of our architecture for system building is presented.

The visible outputs of the company are its products, projects, and services. However, behind these lie a number of important structures and components. At the low level, we have a philosophy of enterprise class programs that are divided into three layers, namely:

Libraries
Engines
Modules

Our libraries are the elementary building blocks, and are required by the other layers, directly, or indirectly, a good equivalent of our libraries would be a Java Class. Engines provide a body of services in a specific functional area; typically, an Engine would require the assistance of one or more libraries to fulfil its responsibilities. Our Template Engine (templ8Ngine™) for example uses services from a number of libraries to accomplish its responsibilities – database management, number/date management, error management, etc. An equivalent in Java would be a Java Bean.

At the very top we have customised modules, deployed to address specific business processes: for example, user registration, invoicing, inventory management, etc. At this level, only those specific tasks that cannot be genericised are handled.

This philosophy makes it a lot easier for us to match the construction of systems, to the analysis and modelling of such systems, using either a top-down or bottom-up approach. A celebrated example of the benefits of our engineering principles is our Template Engine, which allows for clear and effective division of labour between design and programming, while also facilitating simplicity of construction and distributed development. With this engine, sites can be built, starting with a complete set of HTML pages, and supporting descriptions, to form a storyboard, which would be used to arrive at the finished site.

At this point, web page design is more-or-less, complete. Thereafter, a programmer, or a reasonably imaginative HTML-savvy personnel could insert template directives into the pages to create TTML templates, which when called by the Template Engine, generate, dynamic, data-driven web pages. The benefits are all too plain to see, and as can be expected, most of our projects will employ the services of the Template Engine among a number of other Engines.

In the management of projects, and the delivery of same, we maintain a structured approach, often relying on the traditional, entity-based system modelling, with Data Flow Diagrams, Entity Relationship Diagrams, etc. for conceptualisation. In our dealings with newer/younger businesses, we could use Business Objects and the Universal Modelling

Language (UML) for the same purposes. This would be followed by a System Design to express the proffered solution in a number of abstractions that may be layered to address differing levels of detail, depending on the size/complexity of the system. At all times, we try to keep the client as involved as possible, especially in the pre-development stages where the accuracy of analysis, requirements, and specification are crucial to total success.

The development of the system begins once sign-off has been given by the client, and at all times thereafter, interfacing is provided by the Chief Technology Officer (CTO) in London for immediate telephone calls and face-to-face meetings. Where required, clients can be put in direct contact with a Project Manager in the Nigeria office for communicating specific issues, or progression feedback. At the end of each Project check-point, a deliverable will be given to the client for assessment and acceptance testing; if this is satisfactory, an exchange of due payments is effected, and/or an approval to progress.

All international clients will find that one of our key selling points is the comparative cost/quality of the delivered system(s). In effect, businesses that retain our services would be in indirect employment of a consultant, and six (6) staff, with several years of experience: all of who serve the client, at less than the cost of one Europe-based consultant or contractor. We believe that this offers even better value for money than offshore competition from the Indian sub-continent where projects handled by large software houses carry an overhead of interfacing costs, and fewer experts per project.

In addition to this, we give a guarantee of "no-satisfaction-no-remuneration" to all international clients. Where a deliverable does not meet the quality gates of a client, the company gives a commitment to revise the work, within the confines of the specification, to equal the client's requirements and at no extra cost. Indeed, if the client cannot be satisfied, we will not pursue a request for payment.

Enclosed in this letter is a CD with supporting information for your perusal. Therein you will find, among others, a folder containing the company website: the website contains a wealth of information that would be too bulky for paper print, and to onerous for perusal and navigation in a conventional formatted-text document such as this. It is our hope that the information provided here suffices to engage your interest, however, if there is anything amiss, please let me know, and I will do my best to oblige. With your kind permission, I would like to pay a visit to your office in the next week, please let me know when to arrange the visit for. Thank you, GOD bless, and I look forward to your reply.

Yours faithfully,

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