

CNS Annual 2011 Conference Session Regarding
9th International Conference on CANDU® Maintenance

Paper F – Intelligent Replication – a Way-of-Working for the Future

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Abstract

‘Intelligent Replication’ - a way-of-working which is essential for proven-performance based success for future refurb, maintenance, and new-builds.

‘Rigorous Replication’ – for the capture within a ‘base-program’ of what is ‘proven’ – supplemented by a side-stream of -

‘Intelligent, OpEx-Driven, Issue-Resolution’ – for addressing off-line, of the hopefully short list of issues which may persist - and the controlled introduction of such corrections to the base-program as/ if appropriate. The paper discusses Intelligent Replication at the three levels of; utility ‘need’; ‘importance’; and as a ‘thoughtful tutorial’.

1. Introduction

This paper addresses the subject of Intelligent Replication (IR) via a ‘three-part messaging’ scheme which is common to the papers of this conference session. The ‘three-part messaging’ scheme is as follows;

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|------|---|----------------|
| i) | Utility-Executive Level NIOU* Statement | (by: Author 1) |
| ii) | Importance Shake-Down Discussions | (by: Author 2) |
| iii) | A Service-Provider Tutorial | (by: Author 3) |

‘IR’ is an issue which firstly requires a strong, high-level “...needs and interests of the operating utilities*” (NIOU*) statement as its ultimate ‘customer-driver’ – the operating utilities being, after all, the only actual ‘customers-entities’ in this business. Such a statement is provided in the first sentence of the Abstract and in Section 2 below.

Having broadly established the NIOU as noted above, the next step is to conduct ‘Importance Shake-Down Discussions’ to get all of the questions (and arguing) out of the way as to – ‘why is this needed anyway (?)/ is it really worth the effort (?) and/ what is wrong with the status quo (?)’. That is provided in the long last sentence of the Abstract and in Section 3.

By getting such arguments (and exploration of the NIOU statement) out of the way up front, it allows someone expert in the field, such as a Service Provider, to conduct a thoughtful discussion (aka ‘tutorial’) of - “... how does this work/ what does it do for us/ what doesn’t it

do/ advantages or disadvantages compared to other ways-of-working/ etc”. That is provided in section 4 below.

2. The Utility-Executive Level NIOU Statement (by: Author 1)

3. The Shake-Down Discussions (by: Author 2)

4. The Service-Provider Tutorial (by: Author 3)

5. Conclusion

As can be seen from the above paper, Intelligent Replication is fundamental to the achievement of reliable, experience-based systems and equipment ‘refurbishments, replacements, and new-builds’ – all as required for reliable, predictable, cost-effective, and performance-adequate operations, operational support, plant refurb and plant new-build going forward.

On the other hand – ‘simple replication’ by itself may capture a large degree of ‘proven experience’ but it will do so without any knowledge of what ‘issues’, ‘bad OpEx’ or ‘manufacturing calamities’ may lurk for the un-wary.

Likewise – an ‘intelligent’ program, which operates independently of a companion ‘rigorous replication’ scheme will basically become a ‘loose cannon’ of un-managed issue pursuit, unsubstantiated ‘change rumors’, confusion, missed issue-resolution opportunities, acrimony, distrust, and eventually – a reactionary ban on all such investigations – with the attendant loss of benefit from lessons-learned, experience-gained, and issues-avoided.

Clearly, IR is a concept which is ‘worth the bother’.