

## MISSION CRITICAL PRODUCT CERTIFICATION

**PUBLIC FORUM BOCA RATON, FLORIDA JUNE 4, 2003**

PROJECT OWNER/AUTHOR: PAUL JORGENSEN

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### Summary

The meeting began with lunch and was followed by a presentation by Pitt Turner on Mission Critical Product Certification (Certification). In addition to the 13 Master Advisory Council (MAC) members, there were 29 attendees at the Public Forum.

After Pitt Turner's initial presentation, Ken relayed his history with The Uptime Institute (the *Institute*) and how this specific industry is unique in that it requires "24 by forever" reliability, oftentimes more rigorous than military requirements, yet the vast majority of facilities users purchase unregulated and uncertified equipment off the shelves. Ken also relayed his theory that the "uptime psychology" is indeed an area that can be augmented by the development of a Mission Critical Certification Program.

Ken expressed to the forum that he is not in control of the Master Advisory Council (MAC), but would like to continue to have the control of program ownership so that he may drive the company. He expressed his financial concerns for needing to expand this work in a for-profit company rather than a non-profit structure. The Uptime Institute has, through its membership work and research, greatly benefited the industry, and many attendees in the room.

Ken Brill said that APC had contributed the seed money for this development work. Ken discussed the financial considerations and the compensation necessary for continuing this work. He indicated that he was hoping that other vendors would also contribute to fund the initial development work.

### Breakout Group Session

After Ken Brill's introduction, Paul Jorgensen opened up the topic to a more focused and deliberate group discussion. Users, manufacturers, and consulting engineers were equally distributed into five separate breakout groups with a list a questions to use as a starting point. Members of the MAC facilitated each group.

The breakout group session lasted for more than an hour and was followed by a general discussion of the following questions. Highlights from this discussion are below:

Question One:

*Is there a new technology adoption problem?*

Many participants agreed that new technology adoption is a problem for users, manufacturers, and consulting engineers. The discussion focused on how this problem is perceived in the marketplace and whether the time it takes to purchase a new product is a natural consequence of procurement or the direct result of the risk involved in new technology adoption.

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- Group Two discussed development of the Certification process needs to be evolutionary, not immediate and abrupt. Changing the perception of new technology adoption will take time.
- Group Three concluded that the problem of technology adoption is more perceived than real, as new technology purchases by users will happen anyway. A Certification Program would only normalize the purchasing process for the user.
- Pitt Turner interjected, asking the public group, “How do you as consulting engineers, manufacturers, and users overcome the perceived problem?”

Question Two/Question Three:

*What inhibits users, consultants, and manufacturers?  
Would “Certification” reduce adoption risk?*

The group discussed several inhibitors to new technology adoption that face users, manufacturers, and consultants, and the various risks involved when making a new purchase decision. The group discussed cost and fear as being the strongest weighting factors in a new purchase decision, questioning whether Certification would increase the price for smaller manufacturers and whether it would alleviate fear of a new purchase entirely. The group also conveyed interest in creating a similar standard that consultants could adhere to and the importance of service level agreement (SLA) contracts in formalizing the Certification process.

- John Diamond relayed that for users, cost, amortization, and the return on investment (ROI) are the strongest weighting factors.
- Group Two agreed that cost was a deciding factor for users. A “Good Housekeeping” seal of approval might be more appropriate than a full Certification process. Also the cost of Certification could be a barrier for manufacturers.
- Ken Brill interjected that smaller manufacturing companies often can’t get the traction or the recognition they need to enter the marketplace. Also, the risk for users in product selection is greater for a small company—would Certification engender a price increase for the product?
- Others questioned whether they, as users, could have a greater trust in a product just because of the Certification label. All groups noted that fear is a driving force in equipment selection. User companies fear that there will be a liability issue if the equipment fails to perform; so few people are willing to take the risk of buying unproven equipment.
- Group Three found the inhibitor for manufacturers to be a *Consumer Report*-type atmosphere, which might cause skepticism if information were published that reflected poorly on the manufacturing process, procedure, or product. A simpler program such as a pass/fail Certification should be implemented first with the manufacturer’s buy-in up front.
- Peter Gross stated that the rating system would be very difficult to use in making an objective assessment.

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- Terry Rennaker argued that the model employed should be Certification rather than Validation. There was further concern that Certification will focus on what the product claims it can do, rather than “whole product” issues<sup>1</sup>. Terry is interested in whole product issues but he stated that he doesn’t need a set standard for that; he just needs the information provided by the certifying body so that he can make an informed purchasing decision.
- Another participant (name unknown) commented that if there is a level playing field for all products, shouldn’t the consultants be required to adhere to a uniform specification, governing their conduct, as well? This participant asserted that if this is not addressed, non-compliance of the certifying agent could be a significant inhibitor for manufacturers and users.

A discussion followed about users and unskilled users. If a consulting engineer endorses a new product, the certifying or verifying body needs to provide a “holds harmless” contract on behalf of the certifying body. The SLAs need to keep up with the pace of the emerging technology and when agreements do not reflect current data, it is a risk factor for the user.

Question Four:

*Should evaluations be limited to performance testing, or is “whole product” important?*

*How is industry participation maximized?*

*What is “Certified” versus “Tested”?*

The group discussed the potential role of Certification in the industry to provide equal entrance into the market place for manufacturers’ new technology. Further discussion ensued about the importance of defining specific terminology used for the Certification Program and various means by which manufacturers could make their claims about the products considered for evaluation.

- Peter Gross believes the role of the Certification process is to level the playing field and allow the manufacturers to sell to the owner and defend their product. Certification cannot be the “end all and be all” for automatic product approval.
- Ken Brill suggested that if UPSs were examined, for example, there would need to be a different standard for those used on and off the raised floor because the function of the box is different and the requirements and the infrastructure of the equipment will be different. “If we are leveling the playing field, we cannot disable the playing field with complexity,” Brill said.
- Paul Jorgensen responded to hearing “validation,” “rating,” and “specification” as terms that need clarification and definition. (See related document “Definitions for Different MCPC Testing Programs”.)
- The group discussed which specific items need actual standards and which just need information and full disclosure. The group decided that Certification should validate the specification sheet, discover unnecessary items, and then provide the user with an overview from the industry standard about the specific piece of equipment. Resulting in a comparison

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<sup>1</sup> “Whole product” refers to a concept described in Geoffrey A. Moore’s 2002 book *Crossing the Chasm*.

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of the product's features and benefits, and an executive summary of where it stands in relation to general industry standards.

- Richard Schlosser needs to know that the claims a manufacturer makes about its products are true—a true or false statement. If the evaluation is subjective in regard to “whole product” categories, then it is not fully acceptable. Another participant (name unknown) commented that this Certification of individual components is better without the rating categories. The group expressed great resistance to the idea of different categories of acceptability. Ken Brill insisted on the importance of establishing a measurement that has commonality.
- Pitt Turner proposed that the program identify the standards of measurement and validate the standards of measurement—not necessarily set the standard, but present the methodology. He envisioned a list of 15 items to be reviewed. These would be items that are not necessarily pass/fail, but have consistent weighting factors that normalize the measurement process for all manufacturers' products.
- One participant wanted to present a thoughtful series of questions, ask the manufacturer to respond, and certify the equipment if the answers can be validated. However there was agreement that validating what the manufacturer says about performance is not enough. The objective must be to have the owner supported in his decision-making process. Ken Brill suggested that if this is a five-year process, it could be that this is a good place to start. "Validation of the product alone won't justify the cost; there has to be more to the process." Brill said. Ken suggested providing a list of thoughtful questions to the manufacturer that would serve as criteria for entry-level participation.
- An end-user stated he needed quantitative as well as qualitative analysis.

Question five:

*What products should be done first?*

The group discussion articulated the areas that need more definition when qualifying which products should be evaluated first. The group discussed the different product categories and whether or not whole product evaluation is too subjective for a consensus body to evaluate. The group further discussed that standard-setting and product comparison based on a rating system, is limiting to the manufacturer's product. The discussion covered various aspects of marketing and serviceability for the user. There was no definitive conclusion by the group as to what products should be evaluated first.

- If a new product is coming to market and the manufacturer's claims are just being validated, the process of being witnessed by a third party is still a big step. The manufacturers are then seen as driving the innovation and a Certification body merely as validating the claims. The barrier to market entry for new technology would be lower if there is a qualitative statement that accompanies the validation of the product.

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- Peter Gross sees two categories: the first covers totally new and revolutionary products that have never entered the market, and the other category would accommodate products that manufacturers will need to improve in order to get an edge over other manufacturers.
- Another participant (name unknown) commented on the murky meaning of the word “subjective” when it is used in reference to the Certification process. Any subjective evaluation appears to be threatening for the manufacturer because it leaves product standard definition to the evaluating body.
- Leo Soucy talked about efficiency as something that could be measured and would receive a tiered rating. Soucy questioned, "Indeed, that could be evaluated, but what about the subjective areas that are open to interpretation?"
- John Diamond asked that we define “critical serviceability.” The critical attribute needs to be defined.

The group decided that whole product categories are clearly important, but many characteristics are difficult to measure because of their subjective nature.

- Steve Fairfax believes that it is inappropriate for a consensus body to set standards for a whole equipment category. "There are too many subjective elements. You can't tell users what to buy," he said. Steve concluded that whole product testing introduces too much subjectivity. Steve believes the breakout group questions presented by the MAC lacked definition. Different groups at the Public Forum interpreted the questions differently.
- The group suggested that this process may be moving too quickly, and maybe the Program should work out the testing rather than focus on certifying the product.
- Steve pointed out in his copy of *Crossing the Chasm* that standard setting is just a small part of the how the product can be examined, and the MAC is concentrating on this aspect only.
- Paul Jorgensen suggested that all items that qualify for Certification could be addressed for whole product categories, but the resulting evaluation needs to be meaningful to users and manufacturers.
- John Diamond discussed his concern over the lack of a marketing strategy for MCPC as well the group's credibility. Does Certification have meaning? What is the appeal process for the manufacturer to question a decision made by the MAC members?
- One participant said the MAC, as a certifying body; needs to be very careful about telling manufacturers how to build their product.
- Richard Schlosser's group pointed out that points can't be taken away if the product doesn't have “something” that another product has—the functionality of each product could be different.

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Question six:

*How should users, consultants, and manufacturers be involved?*

This discussion covered the questions related to how users, consulting engineers, and manufacturers should be involved in the various elements of the MCPC Program, including: funding, defining the mission, goal and structure of the organization, setting Certification criteria as MAC members, defining specification criteria as Product Technical Panel (PTP) members, and selecting PTP and MAC members. The discussion also covered general questions about what information should be discussed with whom and when.

Many participants agreed that MCPC must be end-user driven.

- Bob Cashner discussed a recent experience in which major end-users in mission critical facilities expressed great excitement that this would make their job easier when making purchasing decisions.
- Another participant asked whether end-users would really pay a price increase for having a product certified. Bob said that product price was not discussed in his meeting with other users.
- Dominic Alcaro asked how important a price increase *really* is to the user. Of course having a product certified would be beneficial, but how much added value would be placed on the manufacturer and the product? Perhaps the manufacturer could defray some of the cost onto the price of the product. Dominic said that the market would determine the future of MCPC.

Manufacturers need to be more involved with the process—not to the point of certifying, but they need to participate. The idea of a separate manufacturing Council that provides feedback was discussed.

The group suggested that the absence of a manufacturer on the MAC or the PTP makes them uneven. The argument against having manufacturers participate on one of the Panels was presented and discussed.

- Peter Gross discussed the market perceptions that are difficult to change. He reiterated that many MAC members are on the panel because they care about changing the industry, which very well might collapse without the help of their active involvement. The discussion by the group about manufacturer's participation continued. Many believe that if there is no manufacturer represented on the MAC, it is not an open panel, and so total disclosure by the MAC to the manufacturer would be a necessity. The reason for having a manufacturer sit on the board would be to help the Council make the right decision by facilitating the process of Certification.
- Another participant thought that full-cycle communication, with all dialogue between the MAC and the manufacturer publicly revealed, needs to be disclosed.

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- Ken Brill commented that the manufacturers feel excluded from the Certification process and finding a way to include them would be a positive move for all participants. Ken suggested that one representative could be on the MAC and other representatives of manufacturing could be on the PTPs.

## Conclusion

Steve Fairfax concluded that “participation” and “representation” need to be clearly defined in the Certification process. Steve continued by stating that as long as there are ample ways of participating, every manufacturer can be involved, but it is imperative that one representative be on the MAC. Peter Gross thought a compromise might be possible between having manufacturers represented on the MAC and having a Council that excluded manufacturers' participation—if a manufacturers' advisory board were organized, then they would be able to select members. The consensus of the group was to have manufacturing participation on the PTPs and the MAC. The general discussion moved from manufacturer's participation on the MAC to the difference between a *Consumer Report*-type model for Certification versus a standard-certifying body based on other standard-setting bodies.

A decision was made by the group to develop common terminology and definitions for the Program. The overall response from manufacturers presented their concern about Ken Brill's conflict of interest if he continues private consulting. The suggestion was made that Ken would have to agree not to continue private consultation. In his defense Ken thought that this limitation would then restrict all manufacturers from using any MAC members as private consultants. However, the concern about Ken's conflict of interest could change significantly if the certifying organization is independent, and the *Institute* becomes a consultant to the program.

Paul Jorgensen encouraged everyone to respond with feedback and stated that a summary and minutes would be sent to everyone.

The meeting was adjourned at 5:15 pm.