

# NTAF through the Eyes of a Former Member and Founder

## Part 1 of 2

Kingston Duffie was Founder and CEO of Fanfare, as well as a founding member of the Network Test Automation Forum, (NTAF). Mr. Duffie was interviewed in June 2011 and in this first installment of a two-part article, he reveals his thoughts on the newly released NTAF specifications, his retrospective view on the forum's scope, the ideology of a test automation standard and his opinion on its evolution to real-world test lab automation environments. *\*Since Spirent's acquisition of Fanfare Mr. Duffie has moved on to pursue other opportunities and is no longer involved in NTAF.*

### **NTAF: What are the differences between NTAF and its predecessors (TesLA & TAA)?**

#### **Duffie:**

*Fanfare was a member of all of these groups. NTAF's predecessors were created by industry test equipment leaders and although these organizations did some good work, they were balanced toward the interoperability needs of the test vendors in the industry. NTAF is different because the industry's leading consumers of test solutions are co-equal founders and it is their interests that come first. Because NTAF's outcome is tied directly to what their major customers are asking for, all vendors have an equal incentive for its success.*

### **NTAF: Why did Fanfare initially decide to join NTAF?**

*Duffie: As a software vendor providing automation solutions, one of our most difficult challenges was to provide integrations between our product and the many diverse commercial and proprietary tools that our customers use. Each element/vendor that we integrated created a long-term liability for us as we had to deal with updating these integrations every time one of those third-party tools changed. This burden was overwhelming for a small company like Fanfare.*

### **NTAF: What are your thoughts about the recent NTAF announcement and release of the Specifications?**

*Duffie: Many industry groups and standards bodies have come and gone over the years. Most have produced many specifications and standards that have never been adopted. These failures typically result from two factors. First, the experts involved have attempted to take on problems that are too large in scale, leading to specifications that are too difficult to understand and implement. Second, because of the time needed to produce these large complex standards, the industry passes them by before they are completed.*

*I'm delighted to see that NTAF has avoided these pitfalls. Little more than a year after we met to establish the group, we have two specifications that have been formally approved by the membership. These two specifications, taken together, establish a framework that is elegant and solid. This framework is sufficient for vendors and*

*customers to actually begin using it and simple enough that we can expect working interoperable solutions to start appearing later this year.*

*It is a great credit to all of the members and to the executive committee that we were able to avoid competitive posturing and have done something that will truly benefit the industry.*

**NTAF: What do you see are the biggest technical obstacles to implementing the new standards?**

***Duffie:** The biggest technical challenge is to define standards that facilitate interoperability without stunting innovation. A simple standard can be excellent at ensuring that products from two different vendors will work together. That same standard, however, may never be used because it limits the ability of those vendors to provide added value that will differentiate them from their competitors. Conversely, a product conforming to that standard can also limit the ability for a testing organization to adapt that product to their special needs.*

*Without standards, vendors and customers are free to follow their imagination with what is possible, but they have to do virtually everything on their own. The challenge is to come up with an interoperability standard that ensures that things work seamlessly together, while allowing each part to push forward with new ideas without waiting for a standards group to catch up.*

**NTAF: How does the NTAF specification address those obstacles?**

***Duffie:** NTAF has chosen not to focus on standardizing what will interoperate but, rather, how they interoperate. Essentially NTAF has defined a new language in which devices and tools describe themselves, discover one other, and take advantage of these other capabilities in their environment. The current NTAF specifications say nothing about what these capabilities must be, but because every tool designed to meet the NTAF specifications is required to be fully self-describing of its capabilities, exciting new things are possible. Tools can take advantage of capabilities in another tools that weren't even anticipated when the first tool was originally released.*

*In these ways, NTAF has established a framework which vendors and others to innovate at their own pace, while also having a common language for focusing on the parts of an overall solution that they choose to, while interoperating seamlessly with other commercial, open-source, or proprietary components within a complete testing solution.*

**NTAF: How will it evolve into reality?**

***Duffie:** It's always dangerous to predict the future of a standard – especially at this very early stage. Some standards find their ways into narrow places where they serve a specific purpose extremely well, but are not used broadly. I certainly hope that this is not*

*the case for NTAF but if it does find a very specific use, then that is not a bad thing either.*

*More likely, I anticipate that over the year or two, we'll see that major customers (like the largest network equipment manufacturers and largest service providers) will begin demanding that their testing vendors provide NTAF interfaces for all of their products. Already, we've seen one service provider who has built some impressive home-grown tools using NTAF recommendations and recognized the value of having access to test tools that adapt the NTAF specification. This will drive the industry in the right direction. Within two or three years, I hope to see that almost all test vendors are investing most of their automation energy not in Tcl APIs but in better and better NTAF capabilities. But it will be interesting to see.*

**NTAF: Do you see NTAF's work being applicable to areas outside of networking? If so, which ones?**

***Duffie:** Yes. The fundamentals of NTAF have very little to tie them specifically to networking. The specifications are potentially applicable to virtually any testing environment, especially when multiple components are required to assemble an automated solution. Having said that, I think it would be a mistake for NTAF to spread itself too thin. The networking industry does have special testing challenges and NTAF should ensure that it fulfills its mandate to the industry to facilitate solutions to those challenges.*

### **About Kingston Duffie**

*Kingston Duffie's career in the networking industry started at Bell Northern Research and Northern Telecom in the 1980's where he worked on the first generation of digital telephone switching and later packet switching. In 1990, he came to Silicon Valley where he founded three successful venture-backed start-up companies. The most recent of these companies was Fanfare which was acquired by Spirent Communications earlier this year. Kingston is now working on a new start-up company focusing on a new generation of internet-based messaging.*