TSI Compass CEO, Philip Klingensmith, joined Ortronics and Fluke on a by-invitation-only travelling presentation, to introduce 10G to the Middle Eastern region. Mr. Klingensmith's presentation highlighted design and testing considerations, in order for the newest networks to yield the fastest and most reliable efficiencies. This Road Show was held in Riyadh, Dammam, Manama, Dubai, Kuwait, and Doha, from June 11 to 20, 2007.

Here are direct questions posed by *Network* magazine, published by ITP and the answers provided by world-wide telecommunications expert, Philip Klingensmith, CEO of TSI Compass International, a global leader in telecommunications consulting and design. These were incorporated into an article entitled *Fast Forward*, printed June 2007.

"The Middle East has a reputation for wanting the latest and greatest, but not knowing what to do with it when they get it. As far as future technology is concerned, what should enterprises be focusing on when it comes to networking?"

Some managers in the Middle Eastern Region make costly decisions because they are pushed and pulled by large companies which are product oriented. Unless a manager has an engineering or technical degree, that manager is unable to distinguish between the design promised with the product purchase and an infrastructure design provided by a Registered Communications Distribution Designer - Outside Plant Specialist (RCDD/OSP). Furthermore, some managers cannot make a connection between the products purchased and the needs they have. In the future, managers should ask RCDDs to perform needs assessments, then to design open architecture infrastructures into which all standards compliant products may be integrated in order to perform the applications these managers need. The amazing fact of the telecommunications networking world is that old products may be combined with and work with new ones, provided that the infrastructure is an open architecture design and that the new products meet uniform standards.

"What upcoming technologies are getting managers excited?"

I hope managers are excited about technologies that allow them to manage what they have already purchased, such as the new testing devices for optical fiber networks. Managers should be excited by new wireless technologies, such as 3.5 and 4G, which can be integrated into existing networks, allowing expansion of regional networks. Exciting improvements in free space optics and Wi-Fi mobile convergence will lead to faster and better technology deployment, with more consistent up times. The techniques for laying underwater optical fiber and terminating it to shore have improved dramatically. Equipment involved in installation has been modernized to be vastly smaller in size and far less costly than it was previously, so new installations are easier to

implement and can be sized appropriately for managers' needs. These new technologies also perform faster and more reliably than their predecessors.

"What mistakes are being made in the region?"

There are no consistent standards for the region, so some managers are being attracted to cheap installations, non standardized products, and product specific designs, which simply will not work. Furthermore, many managers think they have reliable and secure networks when they do not. Lastly, codes are not applied uniformly, if at all, and this problem may not manifest itself for years OR may cause the building to catch on fire, which is a more immediate issue.

"How can they be avoided?"

Managers should demand to know if the products they are being sold are standards compliant. Furthermore, they should ask hard questions about security and redundancy. Managers should plan to install open architecture infrastructures designed by a Registered Communications Distribution Designer (RCDD). If Managers need to assess their current network, they should undertake a system audit by an RCDD.

"How much heed should network managers give unproven or new technologies?"

All network managers should review unproven and new technologies to see if these will meet needs they have. Then the new technologies have to prove they are standards compliant. Who would not want to increase the speed and effectiveness of their optical fiber network? Managers should be looking at products like the interferometer, which tests and validates the terminations on their networks to ensure optimum performance.

"What emphasis should network managers be paying to infrastructures that allow them to scale if and when they want to?"

Network managers should place total emphasis on infrastructures that allow them to scale. Furthermore, they should insist on technology which provides seamless conversions, additions and changes!

"How should they be strategizing for the future?"

Network managers should plan ten years out to have infrastructures which can accommodate new standards compliant products. No one has a crystal ball, but unanticipated new products, if they are standards compliant, should be easy to integrate into a truly certified for peak performance open architecture infrastructure.

"How do or can network managers cope with rapid technology change?"

Network managers who join world-wide not-for-profit industry associations, such as BICSI, will be kept informed of new technologies, their standards and their uses. This is the best way to stay informed of all new products, not just the ones marketed in the Middle East.

"What about promising technologies that have ended up in a dead end?"

There is a place for almost all standards compliant technologies, even though the market for some is greater than for others. Hot and exciting technologies that are not standards compliant or which are completely dependent on a proprietary network are doomed to disappointment.

"Are there any current technologies that look promising, but could end up on the scrap heap (e.g. if WIMAX fulfills claims it could usurp Wi-Fi or GSM?)"

People who sell current technologies would have my hide if I predicted failure for any of them! However, I can say there is no way the managers who adopt open architecture infrastructure will ever have a network which fails because it cannot adapt to current and future technological change.

"What justifies an enterprise taking a leap into the technology future rather than adopting a wait and see strategy?"

Enterprises which wait and see get left behind in the dust! Enterprises which take the leap which meets their needs will reap exponential benefits in productivity and efficiency.

"When should enterprises invest in new technologies?"

Enterprises should invest in new technologies when they are building new buildings or a campus of buildings. Most importantly, enterprises should invest in technologies which will allow them to meet their future needs, and not be inhibited from doing so. The life of an open architecture infrastructure may be ten years or more whereas product driven, proprietary architectures will last only until the next product comes out, three to five years at the most.

"How should network managers overcome resistance by general managers, etc. to the cost of investing in largely unproven technology?"

Network managers should focus on building infrastructures on which to base future technology. Then the incremental additions are not a huge investment, and can be cost-justified by the technology meeting the needs of the general managers.

"Is there a danger of adopting new technology for technology's sake?"

Middle Eastern managers are too savvy to adopt new technology for technology's sake, but some may be pushed too hard by big companies to buy the latest bells and whistles even if these are not needed. A true needs assessment undertaken by an RCDD will insure the proper selection of new technological products.

Buying design and implementation of open architecture infrastructures will remove the risk of adopting a new technology. An open architecture is one to which any standards compliant product may be connected. All businesses should plan for the future by installing these, instead of product-specific ones, in order to gain up to ten years of use, with additions and changes.

Philip Klingensmith, CEO, says "TSI Compass International designs comprehensive, reliable voice and high speed data infrastructures for single building and campus settings." Fully redundant and secure, these open architecture infrastructures provide the uniform standard base for installing standards compliant products for any and all applications. Furthermore, TSI Compass International staff conducts needs assessments to determine client applications, in order to design infrastructures which can accommodate growth, additions and changes. New technologies are wonderful only if they support the needs of the managers. Finally, TSI Compass International follows up their design work by testing newly implemented systems to make sure they work at the level promised the customer. We will audit specifications and make recommendations, and will provide testing services for any previously implemented designs. We have the most modern testing devices, including the interferometer, which tests fiber connections. Our company is proud of our experienced, highly skilled consultants, credentialed as Registered Communications Distribution Designers - Outside Plant Specialists (RCDD/OSPs.) We are BICSI Master Instructors, 3M Certified Instructors, CommScope certified instructors, and we have credentials and consulting skills in all facets of inside and outside plant infrastructure design, project management, project inspection and audits, training development and training provision. We have a 98 % pass rate among students who attend our courses.