LtGen Viereck gave a keynote speech on NATO’s Global Training Architecture during the 6th International Conference on ICT for Development, Education and Training in Dar es Salaam, Tanzania.

eLearning Africa 2011
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NATO’s Global Training Architecture

[Address and Introduction]

I am here today to elaborate on NATO’s Global Training Architecture, its architectural features, and how to make it fit for purpose.

Before I dive into the subject, allow me a few words on my assignment as NATO’s Joint Force Trainer in the light of our near past and the development as we know it today, to give you a first idea what my roles and responsibilities are. Being part of Allied Command Transformation, NATO’s leading agent for change, my task is basically to organize education and training in such a way as to better cope with the increasingly challenging operational tasks our commanders in theatre are facing and align nations and partners efforts.

I consider training a common task where NATO and nations have to work closely together to achieve optimal results.

I believe that by involving each and every one – national and partner training centres, training facilities, and institutions – in a more coordinated fashion, we can enhance the effectiveness, efficiency and affordability of education and
training, which is becoming increasingly important in light of financial prudence.

However, besides the need of restructuring efforts in order to better coordinate and steer training, the question arises what fundamental change and what challenge do I have to focus on when I am pursuing the goal of best trained troops and civilians possible.

In the military we have seen a major change in this last 20 years and challenges arose to cope with it.

Important to note is: we and our plans and training did not focus much on working together with International Organisations or Non-Governmental Organizations. The forces were homogeneous units coming from a single nation only. Interoperability at tactical level was a no-no, and little thought was given to partners.

But with the Cold War ending in 1989 and with the world changing, geographical boundaries shifted, and the security environment, especially the nature of conflicts, changed dramatically; now, opposite to the past, our forces are being permanently deployed. We face situations where small units from various nations are fighting side by side at a very low tactical level. That means: units need to be more interoperable down to the lowest level, this has implications for leader quality and language skills of all, military and civilian personnel. We also see that soldiers are working within a Comprehensive Approach, side by side with civilians. It means enhancing and deepening civilian-military relationships, most urgently at the strategic level, which
sometimes seems to be lagging behind the contacts established at the operational and tactical levels.

This emphasis must be reflected through the entire range of our activities, and be a key driver for reform and transformation. We will need to draw together more effectively crisis management instruments, with the aim of better integrating and facilitating national, multi-national and non-governmental contributions – and this logically again has implications on training.

We will increasingly find ourselves working alongside and in support of other actors to develop a comprehensive, cooperative, interagency approach in concert with nations and international organizations like the European Union, the African Union and the United Nations. Partnerships, in all their diversity, will occupy a central place in the daily work and for this we must prepare our soldiers and civilians to cope with these new challenges. Partners in many cases will make the difference between partial and complete success – and training is the key enabler.

As already indicated in the beginning my major goal is to make education and training more effective, efficient and affordable, because I strongly believe that our commanders in the field deserve the best trained soldiers and civilian personnel possible; experience shows you really feel the difference when personnel have completed NATO training.

Whilst following our military top-down process there is also the need to establish a structured process to align training requirements with the offers provided by NATO and national institutions.
NATO’s Global Training Architecture

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The challenge is to establish a mechanism that assures that the various institutions provide opportunities that follow the political guidance and meet the requirements. Therefore standardization and synchronisation in the area of education and training became the decisive factors determining the success.

To contribute to the comprehensive political, military and civil approach which is necessary for effective crisis management we actively engage with other actors. This “global” awareness has to be developed by tailored training programs. The mapping of existing training opportunities to include, for example, nation’s venues, which may be utilized all, in an effort to increase capacity and set conditions for enhancing cooperation, is therefore of utmost importance.

To be more open and receptive to academic and national education and training opportunities we have designed the Education Training and Opportunities Catalogue (ETOC) in line with UN-standards and academia which will be easy to use.

To better cope with the existing requirements for a structured approach to Education and Individual Training, we set up a learning management system matching NATO training requirements with the opportunities offered in the Education, Training Opportunities Catalogue. It supports the delivery of a tailored training plan for each individual, allows transparency in tracking and budgeting functions and quickly identifies and resolves training gaps and redundancies. This programme will allow real time visibility by all users to ensure transparency and improve communication of training requirements and opportunities on the unclassified web, online. It’s the only way to go.
In this context eLearning or Advanced Distributed Learning (ADL), as we call it, has to be used as an innovative and powerful method of teaching and learning to produce, develop, deliver and maintain effective, relevant and high quality education and training. It is an essential tool to provide education and training as well as performance support for personnel in a cost-efficient way. Our ADL initiative seeks to achieve interoperability across computer and internet-based learning courseware through the development of a common technical framework and sharable content in the form of reusable learning objects.

Furthermore, ADL brings a comprehensive approach to education and training technologies to include online courses, distributed simulation, serious gaming, mobile learning, knowledge portal and communities of interest support in order to deliver efficient and effective high-quality learning.

The goal is to provide education and training tools that enable synchronous or asynchronous distributed learning and individual training to be delivered by electronic web-based systems, computer and communications technologies, anytime, anywhere on demand.

Therefore, ADL can be utilized to provide a complete standalone course or be used as part of a blended learning training package that supports existing training courses as pre-learning teaching material or post course reference. In addition to that it can also be used to provide “just in time training” for exercises and operations where staff are given short notice and require operational information at real-time or near real time for exercises or real world events.
There is no doubt that the current operating environment of our forces requires a more agile and responsive training system.

The high tempo of change in the operational environment and the speed of introducing new capabilities developed by industry and academia magnify our responsibility to cope with the commanders requirements in a reduced timescale, a more holistic manner, and in a concerted effort.

Together with the Nations and Partners, my headquarters want to build and sustain a holistic and transparent training and education system. Our ability to use the competence and synergies of all actors involved in training and education across the organisations community and beyond is critical to our success. Only through common efforts will we be able to provide our soldiers and civilians with the best training there is – which they merit.

Now, the decisive question is: What kind of architectural features does future Education and Training need to have to being able to follow the goals I’ve just mentioned.

Allow me to illustrate this challenge by means of the Educational Category Winner of the Building of the Year Awards 2010, the Diana Center at the Barnard College in New York City.

The laudation describes the building as follows: “Rethinking the mixed-use building type, the Diana Center brings together the college’s previously dispersed programs and constituencies by setting up visual juxtapositions that invite collaboration between disciplines.” Furthermore, it “encourages informal encounters”, “unites [...] interior and exterior spaces”, and
“establishes a reciprocal relationship between the campus context and the diverse elements within the building.”

I believe that this building has one of the major pre-requisites for a change-oriented and progressive approach: enable an open-minded environment and constantly try to think out of the box. In addition to that, from my perspective, a second essential precondition for the successful functioning of this approach needs to be mentioned: to support critical thinkers who actually dare to behave like this.

Therefore we need well-educated personnel that are creative and able to deal well with ambiguity: that use errors as opportunities for learning, that have the ability for self-critique, and that are ready for creative disruption of the status quo which leads to a change of process patterns and finally to reorganization.

In the context of our extensive efforts to openly cooperate and collaborate with entities and organisations beyond the circle of NATO Nations, our education and training could therefore basically viewed as a Global Energy Plant creating the necessary knowledge, skills and capabilities.

In order to run this plant as good as possible it requires us first of all to scrutinize the power generation system itself in terms of functionality and durability, and, secondly, compels us to take a close look at the “energy-sources”, the education and training facilities, we are actually using or probably going to use.
On top of that we need to scrutinize how to effectively analyse and steer education and training events based on “efficiency” and “quality” of the curricula and venues.

A major pre-requisite in order to enable this approach is to consider education and training as a supply chain of knowledge and capabilities from introductory basic training events to final exercises prior to mission deployment. The level of efficiency and quality of this supply chain is therefore determined by its ability to deliver the educated and trained persons as economically and as well prepared for mission as possible.

Being aware of the described situation we considered the following questions:

1. Are education and training programs in certain areas of expertise founded on a didactic approach, in other words, are they aligned regarding there content and goals, which ensures high-quality education and training, and

2. Do education and training opportunities, in other words the allocation of training resources, facilitate an efficient education and training system, which ensures to reach given education- and training-goals as economically as possible.

The answers eventually allowed us to picture our education and training holistically in order to enable a proper analysis and in order to avoid duplication of efforts, out-dated curricula or misaligned education and training-objectives.
Furthermore, we could increase our chances for successful improvement, because we won’t merely treat symptoms but rather be able to raise the efficiency, effectiveness and affordability in a target-oriented manner, much quicker and much smarter than before.

In addition to that, the holistic approach to education and training will also enhance effective integration as well as provide potential areas of mutual synergy.

Ladies and gentlemen,

in the following part I would like to briefly explain to you this holistic approach to education and training, and illustrate it by means of an example.

Based on the assumption that the ultimate goal of each and every training event is “TRAIN AS YOU FIGHT”, the level of reality of training would be directly proportionate to its effectiveness. Thus, the level of reality of training will further on used as the basic pattern to structure and categorize education and training.

Based on the starting point “TRAIN AS YOU FIGHT”, the “LEVEL OF REALITY”, as basic pattern for the categorization, had been be divided into certain kind of dimensions, as depicted on the slide.

One dimensional training events are therefore conducted on the principle of a bird’s eye view, for example a certain kind of Advanced Distributed Learning which provides written rules and regulations of a certain area of expertise.
Two dimensional training events would include interaction as an additional element, which would for example apply to map-exercises.

Three dimensional training events embrace a certain level of dynamic environment.

And finally, four dimensional training covers a real-time element, which normally applies to real-live exercises.

Considering in a next step also the depth of knowledge (who needs to be trained how?), it allowed us to finally create a cubical in which our training events can be inserted. As you can see, a common framework had been created on which a proper analysis could be conducted.

Our recently established training plans are already solely based upon this holistic approach to training. During the analysis and the configuration of training elements this approach enabled us to set the conditions to make it more efficient, effective and affordable.

On top of that, eLearning or Advanced Distributed Learning, was not just a fancy tool in addition to our common training, but actually took over certain parts of our training-chain.

In other areas of training eLearning has already gained the high ground.

In the beginning I’ve already mentioned serious games as a means to train “state-of-the-art”. Our interactive software, ‘Boarders Ahoy!’, a 3D multiplayer game for security and search teams that looks at the boarding of suspect merchant vessels, won the ‘Serious Games Showcase and People’s Choice of
Best Serious Game’ at the I/ITSEC-Conference, held yearly in the USA, which is the world’s largest defence related simulation conference and exhibition.

We are currently investigating technologies that could be used to enhance or improve current training and education methods. In order to facilitate this need, we have partnered with Engineering and Computer Simulations (ECS) to develop a series of virtual worlds within the Nexus Virtual World platform.

In support of our maritime missions, ‘Boarders Ahoy!’ is a way to get threshold knowledge to our personnel before they actually get to a live-exercise; they train from home stations or ships, and do not need to gather in classrooms like in the “good all times” – only virtual classrooms are needed for lessons-learned-analysis.

Ladies and Gentlemen,

one thing is for sure, if it is to deal effectively with future demands, our training will have to become more open and accessible, so that it is based on real-time access all over the globe, facilitating cooperation and allowing soldiers and civilians to ‘pull’ learning to them. Even if NATO is still laying the foundation, using our Global Training Architecture will be the right path to follow. The advantage right now is that everybody can learn when THEY want and can - no matter in which specific time zone they currently are.

I am sure that the future is on my side and that better access and different forms of learning will continue to transform training and increase the opportunities for us all.
I’ll stay here the next days – to learn something from you, Ladies and Gentlemen, to discover opportunities, feel excellence and profit from your experience.

Thank you very much for your attention and I would be happy to answer any questions that you might have.