



» Core Enterprise Services team works in a Server Room in Mons, Belgium. (PHOTO: NCI AGENCY)

ENHANCING INTEROPERABILITY



The Commander of the NATO Communications and Information Systems Group (NCISG), **Major General Frank Schlösser**, tells Simon Michell what Federated Mission Networking is and how it supports NATO operations

Q As a key contribution to the Connected Forces Initiative, what is Federated Mission Networking?

A Federated Mission Networking (FMN) is not only the key contribution to Connected Forces Initiative, but also the key to Day Zero Interoperability among NATO, NATO Nations and partners in Allied operations and missions and other multinational coalitions.

FMN consists of three intertwined parts, one being the governance and management structure empowering the other two elements, namely, the framework and the actual mission networks.

The framework itself is a collection of tools, processes and procedures on which NATO and other FMN affiliates can build the mission networks and establish mission procedures.

Q Can you describe the philosophy that lies behind the FMN concept?

A The Future Mission Network Concept from 2012 was the result of a strong wish from the Alliance to exploit the newly-gained experiences and advantages of information-sharing and shared situational awareness from the Afghanistan Mission Network; this marked the start of a new way for

“I believe it is time to take FMN to the next level”

combining communications and information systems in support of operational processes.

Once the concept was approved and during the effort to implement the Future Mission Network, it became clear that a name change was necessary to underline the real intent of FMN – federation, mission-driven and involving more than technology.

The first word is: Federated. Federation means that we, the FMN affiliates, develop, plan and execute missions and networks together and as such, there is no king but a federation of participants in the FMN initiative and mission networks. The second word is: Mission. FMN is mission-driven, which means that FMN is developed based on an operational foundation in support of Allied missions and operations that is also open to partners and Allies. The third word is: Networking. It is important to note the difference between network and networking, since it is all about the people in the

process. Many see FMN as a technological initiative, but in reality it is very much about people and operations.

Q Over the past 10 years, how has the NCISG and the NCI Agency collaborated on FMN development and implementation?

A FMN is a key feature of the Steadfast Cobalt (STCO) Exercises. FMN, with the NCISG Commander as the STCO Officer Conducting the Exercise and Exercise Director, is working very closely with assigned nations to be federated. In terms of governance and management, NCISG's J2/6 division is represented in many NATO Response Force (FMN-focused) working groups and goards. Finally, NATO Deployable Communications and Information Systems (DCIS) has a significant role in the federation of national systems applying FMN spirals and planning network architectures in close coordination with the NCI Agency.

Q What are the next steps for FMN, why are they important and what role will the NCI Agency play in their implementation?

A The development of FMN takes an incremental approach following a spiral development method. The first two spirals were focused on

delivering basic communications and information systems services to make a foundation for implementing operational community of interest services along with command-and-control functions and applications. The implementation of these two spirals, using capabilities that had been already either in service or in the pipeline of the Allies and partners, allowed time for all stakeholders to grasp FMN, which in many ways is a complex and overwhelming initiative. The NCI Agency has been – and still is – supporting FMN in many different ways, including providing subject-matter expertise to the management structure, the spiral development and providing input to numerous documents and reports. The NCI Agency also supports the NATO Command Structure as an affiliate within the FMN initiative and has applied FMN standards wherever possible to NATO's Deployable CIS (DCIS). As Service Management Authority and Technical Design Authority, the NCI Agency with the NCISG has also led the annual creation of Mission Networks in support of each rotation of the NATO Response Force (NRF).

FMN products are generally framework-related and consisting of paperwork-based tools on which FMN Affiliates can establish procedures and build tangible capabilities in support of operations and missions. However, in my functions as SHAPE Deputy Chief of

Staff Cyberspace, chairperson of the FMN Management Group and NCISG Commander, I believe it is time to take FMN to the next level by emphasising the need for the establishment of standing FMN capabilities in NATO and all FMN affiliates to support daily operations, readiness of forces, exercises and training. As I have mentioned, we have already established a mission network in support of the NRF where Nations providing command elements and units connect. We need many more elements like this to support all operational oriented activities in NATO.

The role of the NCI Agency is clear to me, both in its role as a leading NATO agency championing FMN in the tech-community and in implementing FMN-based solutions across the static and deployable infrastructure in the Alliance. Additionally, to be able to rapidly federate shared services between Nations and partners in support of NATO-led missions, the NCI Agency must place more emphasis on ensuring that FMN-based solutions are implemented widely in all NCI Agency deliverables that interface with Nations, ranging from communications services across to user-facing applications. The ongoing renewal of the connection to Nations using the NATO-to-Nations gateway is already following the federation of connection services policy and is a beneficial step in the right direction. ◀



› The NCI Agency has applied FMN standards to the DCIS – Deployable Communications and Information Systems (PHOTO: NATO)



› Federated Mission Networking is a key feature of NATO's STEADFAST COBALT exercises (PHOTO: SHAPE)