

A Federated Way Ahead for NATO in an Age of Complexity

Food for Thought Paper

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Introduction

NATO is facing a set of security challenges of unprecedented complexity and of potentially increasing gravity. The final communiqué of the 2016 Warsaw Summit spoke of a ‘defining moment’ for the security of NATO’s members and their populations.¹ The current security environment demands a fresh approach, built on policy that encourages NATO nations to connect much more closely and flexibly, among themselves, with the NATO command structure, and with partners.

The re-emergence of state-on-state frictions, chiefly as a consequence of the actions of Russia, and the persistence and significant evolution of the terrorism threat, centred most prominently on Islamic State (IS), have manifested themselves in different ways from the perspective of the different Alliance member states. But, as events have unfolded, they also have shown themselves increasingly intertwined.

When Russia intervened in the Syria conflict, it brought together the renewed challenges of a peer competitor and the serious ripple effects for NATO members of a major regional conflict on the edge of the Alliance, blurring and multiplying the potential threats and underscoring the complexity of the situation. Add to that the new challenges of hybrid confrontation, not really peace but just below the threshold of conventional conflict. All these developments have emerged with breathtaking speed. Uncertainty risks being replaced with volatile instability.

Of course, NATO has adapted before. But, at the moment, it is in danger of losing its edge and, on occasion, being out-innovated by more agile and adaptive potential and actual adversaries, undermining the security of member states and risking military failure. The scale of the challenge to NATO is greater than it has been for a decade or more. At the same time, resources will remain constrained. What is needed is a new policy and a new attitude to commitments and relationships both within the Alliance and among its members, such that NATO is able to benefit more directly and more urgently from the capabilities and expertise of member nations, and vice versa. A persistent federated approach would enable such connections to be forged and fostered, without impinging in any way on the sovereignty of member nations.

The new security environment means that NATO does not have the luxury of time to get it right, to create that construct and habit such that all member nations are comfortable with and consider it a matter of course that they are continually connected at all levels. It needs to be in place, persistent, and resilient. A federated way ahead also offers an answer to a key conundrum. It addresses the urgent requirements of now, while also providing the framework for illuminating the way towards identifying the innovation and transformation needed in the medium and long term.

Enabling and empowering the Alliance’s constituent parts, in a persistent federated approach, is the way to

tackle complexity, uncertainty, the rapid acceleration of change, the need for a persistent 360-degree perspective on threats, and the requirement for new levels of strategic understanding and awareness as well as innovative approaches to partnerships.

But there are challenges too in creating a network with the right connections in both directions between NATO and its member nations and partners that enables the appropriate balance in terms of responses. Hence the need for NATO decision-makers to engage now to seize and shape the policy requirements.

NATO's situation could be described as akin to that in the business world of the computer firm IBM in the 1980s. Previously, the mantra was that 'no one ever got fired for buying IBM' for their business, just as, for so long, the mantra for NATO has been that it is 'the most successful military alliance in history'. But IBM's mainframe computer business was nearly devastated by the advent of the personal computer (PC). NATO does not want to be a mainframe organisation in a PC, let alone a smartphone, world.

Adapting Today, Shaping Tomorrow

Of course, the silver lining here was that IBM, from appearing to be on the brink of failure, transformed itself and revived its fortunes as a hugely successful global brand. And it has continued to reform and adapt. For NATO, the requirement now is for continuous and persistent transformation.

At the NATO Transformation Seminar 2015, the Secretary-General, Jens Stoltenberg, said of the Alliance that 'one of our greatest strengths is our ability to adapt'.² It did so in the Cold War. It did so in the aftermath of the Cold War, meeting the need to preserve peace and stability with the Partnership for Peace programme and the enlargement process. It has evolved its strategic concept.

In the post-9/11 counterinsurgency world, NATO developed the comprehensive approach. More recently still, NATO decision-makers have adopted the Readiness Action Plan (RAP) and initiated the Enhanced Forward Presence (EFP) activities, to provide at first reassurance, then deterrence and defence in the new post-Crimea security landscape in Europe.

But these were essentially reactive responses. The information age imposes even more demanding

challenges, in the speed with which crises develop, the immediacy of their effects, and their complexity, added to which are the increasing scale of both challenge and ambition for the Alliance. This all requires a fundamental shift in attitudes to adaptation.

One of NATO's unique advantages has been its permanent and robust structure of decision-making and command and control. No other international organisation has anything approaching such capacity and capabilities. NATO's command structure has proven its value and effectiveness on numerous occasions. But it needs to adapt further to ensure it remains fit for purpose.

One of the approaches that IBM adopted to recover from its nadir was to reform its global business outlets. From a disparate and inefficient cluster of enterprises scattered around the world, it created a more standardised network that enabled it to benefit more from the talent and resources it possessed globally, but also allowed its smaller operations to benefit from the resources elsewhere in the organisation – essentially, a persistent federated approach. That should be instructive for Alliance decision-makers as they contemplate further adaptation.

A Persistent Federated Approach

Generically, the key to the federated approach is that it allows multiple paths for the flow of information between participants, to facilitate tackling both unpredictable and unpredicted, but also complex and dynamic, evolving challenges. Capability and expertise are distributed amongst NATO member states, within NATO structures, and among partners. Adopting a persistent federated approach implies always looking for ways to unify these different centres of activity and make best use of them, with the goal of creating greater capacity. It could be a comparatively simple step such as informing each other of training or exercise plans so that they can reinforce each other. Or it could be a comparatively complex arrangement to generate shared situational awareness among a variety of actors working together. The key innovation is that the new security environment requires this to be the normal way of doing business, day in and day out, in peacetime, crisis and war. The starting point is always a decision to connect.

Generally, the systems thus connected are autonomous, but there are common, agreed standards to making the connection in order to build trust and security.

The question is, does NATO have the appetite and the mindset to make this transformation, to decide to connect – between the NATO command structure and member nations day to day, but also (albeit perhaps in subtly different ways) with partner states, international organisations, the private sector, and academia – in order to share abilities, expertise, and insight? Possible scenarios could focus on the question of unconventional threats on the territories of member states, or conflict around the Alliance's periphery, ways in which to strengthen NATO's contribution to fighting international terrorism, or humanitarian upheaval beyond NATO's borders whose impact will ultimately touch member nations. Even potential crises on the territory of NATO will in, all likelihood, involve others – whether it is near neighbours like Finland or Sweden or other regional powers.

Such a network may initially only be a dialogue between the Alliance and its member nations. But the key is that it needs to be persistent and continuous. That requires a policy decision, to regenerate linkages between the Alliance and its members, which have atrophied since the Cold War, but also to adapt them for the new, more complex security landscape – in a federated way.

For example, the new, more contested nature of the maritime domain is presenting a range of challenges from the basic maritime security and safety end of the spectrum to high-end sea control and denial. Dealing with all these would stress the Alliance's capabilities, and attempting to duplicate the resources of member states would be impractical. But utilising those national assets in a federated way allows responses to be effectively calibrated and co-ordinated. Likewise, the regional expertise and capacities in member nations could be exploited when regional frictions emerge.

With a persistent connection between the Alliance decision-making structures and national structures, danger signs could be spotted earlier, and the necessary assets available in members' inventories to monitor and if necessary to react to developments could be employed with much greater agility and effectiveness.

When it comes to projecting stability, including, more specifically, countering the terror threat, a robust, resilient network of connections with partners will assist with strategic awareness, providing early warning and the ability to anticipate security demands.

Another key benefit of all this is resilience. Faced potentially with simultaneous emerging threats, on multiple fronts, and of different characters, the persistent federated approach offers perhaps the only practical solution. It facilitates strategic awareness, even strategic anticipation, enabling the Alliance and its members collectively to spot and respond quickly to changes in the environment. That includes in the cyber domain – the Alliance can provide a hub for embedding critical standards and practices, integrating national capabilities in a way that protects members' sovereign sensitivities, and creating a robust, resilient, and reactive set of capabilities. It would also address a key concern common to all members over vulnerabilities in this area.

To underscore the fact that this approach needs to be established, in place, and trusted ahead of time, one need look only to Afghanistan. Of course, the security environment has moved on since the Afghanistan mission was at its height. But one key lesson was that it took five years to develop and evolve the Afghanistan Mission Network (AMN), overcoming institutional and technical obstacles to create a network to share information. That is not an acceptable time frame in the information age, when anticipation is the prize, speed is of the essence, and the challenge of hybrid confrontation would make any process to embark on such a network in a period of crisis a huge political 'hot potato'.

There are potential challenges and risks in the federated network concept, for example the suspicion that it will create greater interdependency, or that there will be potential misuse of the network. But establishing a robust network addresses such suspicions head-on, enabling the Alliance to tackle the vulnerability questions. At the same time, these are reasons why NATO policymakers need to seize the issues at hand and embed thinking and best practice now.

Critically, the federated approach is not a one-way street, simply about the Alliance delegating responsibility. It is, at the very least, a two-way street, or perhaps

a multi-lane superhighway. That is why it is vital to engage now in getting those connections not just in place, but right, and getting the correct balance. How NATO and its members respond may not necessarily be a linear progression based simply on the scale of the crisis at hand. That is not the character of the security environment now. It is about a variable and scalable solution in the information age.

From a technical point of view, as well as presenting a challenge, the information age offers an opportunity for the way ahead – enabling greater and immediate access to the knowledge, expertise, capabilities, and assets of member states, and providing nations with an opportunity to achieve that long sought-after goal of economies of scale in the provision of defence capability. The internet itself might seem like the ultimate federated network – a collection of independent systems which function through agreements to certain common standards and a light touch from US governmental and then international authority. But the technical elements are the connectors. Critically, its significance is as a living network of human connections that function routinely, indeed relentlessly, and have now become fundamental to the way in which people interact.

It has been the advent of enabling information technology – in the shape of the smartphone and the app – that has been behind the arrival of some of the most celebrated recent federated network undertakings in the commercial world. Uber has, since its foundation in 2009, become the world’s most valuable start-up (worth around US\$70 billion) by leveraging technology and its ability to produce an app providing access to a vast pool of cars in, now, more than 400 cities around the world, at significantly reduced cost to the customer compared to traditional taxis.

As well as the technology, the mindset to envision that urban transport solutions can be changed radically was crucial. Uber does not own the assets, but it leverages them to create capability by connecting demand and supply. Indeed, Uber’s model offers it unique insight into demand patterns and customer behaviour, generating its equivalent in NATO’s terms of situational awareness in its sector. By using its federated network of independent drivers, it also delivers a more responsive and valuable service to its growing number of clients.

In the hotel sector, Airbnb and other such enterprises have been having a similar effect for similar reasons. In the case of Airbnb, the response of traditional hotels has been to broaden their reach and increase their agility in the market through federated connections with other hotel chains or online travel sites.

This new phenomenon and these enterprises have been dubbed ‘the sharing economy’. In truth, they are ‘the connected economy’. Individuals retain ownership – ‘sovereignty’, if you like – of their assets. That is critical. The sharing comes from the benefits accrued from the connections, in terms of efficiency, economy, and flexibility.

A Mindset to Bridge the Gap

Beyond the Alliance, the world is increasingly organised in federated ways, as people are communicating and connecting more and more within and across national boundaries. That is also true of NATO’s potential and actual adversaries – for example, Islamic terrorist groups operating across boundaries amidst loose diasporas, or hybrid warfare campaigns conducted by state actors. Unless it grasps this fact, NATO will increasingly be at a structural disadvantage.

Furthermore, with accelerating change being a key characteristic of the future security environment, constant adjustment and re-evaluation will be necessary. And a persistent federated approach would be key to grappling with this aspect of the complexity of the challenge. As has often been said, transformation is not an end in itself. More than that, it is not an end at all. It is an ongoing process.

Take, again, the Uber and Airbnb examples. They have transformed the businesses of personal transport hire and short-term accommodation rental, particularly in urban environments, in the context of the current state of technology and available resources. But that will evolve further, in the shape of the development of autonomous and electric vehicles, and new forms of accommodation stock. In that context, a firm that relies on traditional cars driven by humans may not have much of a future. Of course, that is why Uber is investing in this technology too. But so are other technology firms, like Apple, Google, and Tesla, as are many traditional car manufacturers.

It is in this context that an incremental approach to the persistent federated approach is crucial – leveraging current capabilities to meet immediate demands, as well as to understand better the drivers of strategic change into the future. At the same time, it provides a bridge to the effective exploitation of future technology and strategies. This is ‘the bridge’ between the urgent requirements of now and the medium and long term.

As with any organisation intent on sustaining a successful long-term future, NATO has to balance its immediate and challenging requirements with an ability both to think strategically about the future and invest appropriately, and where possible to link the two. As current risks, complexity, and perceived uncertainty about the character and location of future conflicts have all increased, these demands have become even more acute.

The commercial world may have valuable lessons to teach. But they may not be clear-cut, and will depend on what type of businesses are involved – whether it is, for example, a mature company adjusting to change but whose traditional market and way of doing things are still lucrative, or a start-up willing to risk significant investment in a potentially innovative technological development.

The example of IBM has already been cited as a market-leading, indeed dominating, company under threat, which survived, transformed and prospered again. One respected thesis is that the key to that survival is ‘ambidexterity’.³ In a business or organisational sense, this has been defined as being able both to explore and exploit – to compete in mature technologies and markets where efficiency, control and incremental improvement are prized and also to compete in new technologies and markets where flexibility, autonomy, and experimentation are needed.

Clearly, NATO would qualify as a mature market-leader. So, for NATO, what does ambidexterity look like? For the Alliance, the traditional core business is preparing for large-scale conflict against a peer competitor. Now, it is in the circumstances where the peer competitor has adapted its own model to counter NATO’s past success. So, again, in a world of constrained resources, the federated approach offers the path to adjust and respond, utilising the resources of member nations in

the most effective, agile, tailored way. At the same time, it is the solution to being effective in the new domains where complexity reigns.

There are, of course, limits to applying the lessons of the commercial world. There are different approaches to evaluating risk between commercial and public organisations, particularly when it comes to the risk of failure. But understanding better the differences in the perception of risk is a key benefit of including the commercial sector in a federated approach, in particular in the field of capability development.

What It Will Mean For What NATO Does

Imitation is the sincerest form of flattery, and part of NATO’s challenge now is that adversaries and potential adversaries have watched and learned from its record of transformation in the post-Cold War era. In addition, in terms of traditional core military capabilities, NATO remains dominant, hence the need for adversaries to seek novel counter-strategies. And yet, despite the change that has already been undertaken, the Alliance structures are not fit for purpose for the multiple challenges it faces.

There have been significant initiatives recently, such as RAP, EFP, and the responses to challenges in the south – whether it comprised the deployment of NATO AWACS aircraft or the maritime response to the migrant and refugee crisis. But these actions have stressed the Alliance, have not made optimal use of the resources of member states, and have been reliant in part on the spontaneous political judgements and initiatives of individual national leaders, which might not be forthcoming for the next crisis. A robust, persistent, newly empowered network of official and operational connections provides the solution to that. Unless there is such a response, NATO’s adversaries will be able to defeat the Alliance’s spending and technological superiority.

Of course, it is not new for NATO to seek to leverage the expertise of member nations, perhaps most recently in the Framework Nation concept. But these efforts have not been fully coherent or persistent. And, again, they have tended to be reactive.

The persistent federated approach creates the prospect of a profoundly different way for NATO to address the challenges it faces, and to deliver its core tasks and

critical ambitions effectively in the future, in peacetime as well as in crisis and war. It can deliver this effect at the strategic, operational, and even the tactical level. The most critical benefits will be the greater strategic awareness it can provide, the increase in agility, and the speed of decision-making. At the same time, it reduces duplication and saves on resources. On top of

all this, it would open the way to an even more organic and dynamic relationship between the Alliance and its members on a daily basis, and ultimately with a broader global community as well. So the prize would also be an even more united, cohesive, and relevant Alliance, more fit for purpose and actually also more in tune and in step with how the rest of the world works.

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Notes

- 1 Warsaw Summit Communiqué Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Warsaw 8–9 July 2016, http://www.nato.int/cps/en/natohq/official_texts_133169.htm?selectedLocale=en.
- 2 Keynote speech by NATO Secretary-General Jens Stoltenberg at the opening of the NATO Transformation Seminar, 25 March 2015, http://www.nato.int/cps/en/natohq/opinions_118435.htm.
- 3 Charles A. O'Reilly and Michael L. Tushman, *Lead and Disrupt: How to Solve the Innovator's Dilemma*, (Stanford, CA: Stanford University Press, 2016).



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