

**NET-CENTRIC POLICING
A LAW ENFORCEMENT STRUCTURE FOR THE INFORMATION AGE**

by

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The Command College Futures Study Project is a FUTURES study of a particular emerging issue of relevance to law enforcement. Its purpose is NOT to predict the future; rather, to project a variety of possible scenarios useful for strategic planning in anticipation of the emerging landscape facing policing organizations.

This journal article was created using the futures forecasting process of Command College and its outcomes. Defining the future differs from analyzing the past, because it has not yet happened. In this article, methodologies have been used to discern useful alternatives to enhance the success of planners and leaders in their response to a range of possible future environments.

Managing the future means influencing it—creating, constraining and adapting to emerging trends and events in a way that optimizes the opportunities and minimizes the threats of relevance to the profession.

The views and conclusions expressed in the Command College Futures Project and journal article are those of the author, and are not necessarily those of the CA Commission on Peace Officer Standards and Training (POST).

NET-CENTRIC POLICING A LAW ENFORCEMENT STRUCTURE FOR THE INFORMATION AGE

Introduction

Has the current top-down hierarchal chain of command used to manage police departments developed in the industrial age outlived its usefulness? Is it time to re-exam how we organize our police departments and to look to Net-centric Organizations and Net-Centric Policing as the organizational structures of the information age? As we look to the future and the challenges ahead, police agencies need to become more progressive. We need to consider becoming Net-Centric.

Thoughts on Net-centric Policing

In 1844, New York's State Legislature passed a law establishing the first full-time preventative police force for the City of New York (Peak, Glensor, 2008). Since that time, policing in the United States has always been a work in progress. Policing models and reforms have come and gone, but the hierarchal chain of command has remained relatively unchanged for the past 160 years. Net-Centric Policing (NCP), however, may be the policing structure of the information age.

Thomas Cowper, a current police administrator and member of Futures Working Group and creator of the Net-Centric policing, when asked about his thoughts on the future of NCP, said:

Net-Centric is not just or primarily about a new structure or method of organization. There are networks within hierarchies and vice versa. Net-centric is more about the culture of an organization, about relationships and how types and qualities of the interactions between people can solve complex problems quickly and effectively. Hierarchal cultures are about control and flow from the premise you can create order out of chaos if you can control enough variables. People and the decisions they make are one of the biggest variables and therefore the hierarchal culture is mainly

focused on concentrating power in a few at the top so they can control everyone else, usually through fear, limiting their decisions and actions, their access to information and their relationships to others both inside and outside the organization. Net-centric cultures are about freeing people to decide, act, share information and relate in whatever way is most beneficial to accomplishing our mission in the shortest amount of time. Because the rate of change today is dramatic and increasing, organizations that maintain a hierarchal culture will struggle to remain viable. Those that become more net-centric will be able to adapt and succeed. (T.J. Cowper, personal communication, July 3, 2010).

History of NCP

The foundation for research into Net-Centric Policing is found in Carl J. Jensen and Bernard H. Levin's *Neighborhood-driven policing: a series of working papers from the Futures Working Group* (Jensen and Levin, 2005). The Futures Working Group was established in February 2002 as a group of police managers and futurists representing the Federal Bureau of Investigation and the Society of Police Futurists International (PFI). In *Neighborhood-driven policing*, Cowper (2005) authored the chapter "Network Centric Policing (NCP): Alternative or Augmentation to the NDP Model?"

Cowper (2005) developed the concept of Net-Centric Policing and describes it as a police agency that will be intricately connected, internally and externally. He describes the network as not just information technology (IT) but a system that consists of people, computers, databases, all manner of digital information derived from intelligence sources and sensors, and information from other agencies and organizations. This entire network of information will generate, collate, analyze, and distribute information to everyone who needs it, in real time, in a manner required to achieve the most positive policing results.

Why Net-Centric Organizations?

In his book *The World is Flat*, Author Thomas Friedman (2007), references how the world has started to move from a primarily vertical command-and-control system to create value to a more horizontal connect-and-collaborate value-creation model.

Friedman states, “this connect and collaborate model will begin to affect individuals, communities, how companies organize themselves and how individuals balance their different identities as consumers, employees, shareholders, and citizens, how people define themselves politically, and what role government plays managing all this flux.”

If Friedman is correct in his assessment that the world will be changing from command-and-control systems to connect-and-collaborate systems, law enforcement leaders need to be planning for a time when the traditional hierarchal model of policing will no longer be contemporary. As society continues into the information age, communities will expect more collaboration and connection with their local police department. NCP can provide a structure to do just that.

The Network Centric Operations Industry Consortium (NCOIC) defines network-centricity as not just connectivity across systems or nodes, but between people in the information and cognitive domains (2005). It stresses the shared information and situational awareness that leads to increased speed of command and synchronized effects in battle space and commercial and financial environments, to cite a few. In summary, network-centricity is technical, operational, and behavioral, and it applies to commercial, military, and civil government operations. It has already been the driving force behind the on-going transformation of commercial business operations (An Introduction to the Network Centric Operations Consortium [NCOC], 2005). Proteus USA, an international

consortium and Think Tank, produced a work entitled, *55 Trends Now Shaping the Future of Policing*. Trend number 48 notes that: “Information-based organizations are quickly displacing the old command-and-control model of management.” This trend is well established, and many large corporations have restructured operations for greater flexibility in a manner consistent with the tenets of NCP.

The advantage of a networked system is the ability to share information in virtually real time; it must, however, be shared in a way that is useful to those in the network. It is oriented around the concept of “self-synchronization” as a means of accomplishing tasks without explicit direction from superiors (Abrams, 2009). Cowper describes this as improving awareness through the creation of mutual mental models (MMM’s), which foster self-synchronization throughout the entire organization.

Using these MMM’s, informed groups can “direct their collective yet distributed activities from the bottom up without centralized command or control but within the framework of organizational intent” (Cowper, 2005). Cowper further describes that through MMM’s in appropriate circumstances, there is “...no need for orders passed up and down a chain of command and no need for detailed and specific managerial direction and supervisory oversight” (Cowper, 2005). The command and control structures that slow down traditional policing will be outdated as organizations use the power of a networked organizational structure.

In the developing world, as organizations are created, many start with a networked management structure. The implications for policing are “this new, small-unit business organization closely resembles the cell-style structure of traditional underground organizations. Cetron and Davies (2008) note that major terrorist operations have quickly

adapted to their needs. This has made them more efficient and harder to stop.” Further, they acknowledge that law enforcement may be highly resistant to change, but as a younger generation enters the work place, it will be more comfortable with technologies and less inclined to respect the limits of bureaucracy (Cetron and Davies, 2008). Just as the private sector is beginning to adopt network structures, law enforcement agencies can change. Younger generations will be comfortable working outside the traditional command-and-control hierarchal system used by law enforcement agencies today.

How Does it Work?

In simplest terms, a network is made up of nodes (things that gather and share information) and links (pathways) that connect the nodes (Cowper, 2007). As nodes begin to cluster, highly connected nodes form a hub. In his book *Linked*, Barabási (2003) describes a hub using the example of the World Wide Web and how sites such as Yahoo and Amazon have many links that point to them. Barabási writes “hubs are special.” He explains they dominate the structure of all networks in which they are present, making them look like small worlds. An example in policing is to look at officers as nodes and their work assignments cause a cluster; then the cluster might connect to a hub or central command center (Myers, 2007).

In translating how the net-centric concept may look in today’s police organization, Myers (2007) uses the example of the Distributed Network-Matrixed Leadership Topography as shown in figure 1. The distributed network matrixed topography offers a visual model of how a decentralized police agency might look. Networks will connect and allow collaboration between law enforcement entities in a community.

A networked system of policing under this model has teams of police officers under the coordination of a neighborhood-police team leader. They are linked with three dimensions: 1) professional leadership (the chief), 2) neighborhood direction (the neighborhood advisory council), and 3) information (the information/analysis center).

Team leaders would assist the officers to meet the expectations of the neighborhood and within the guidelines provided by the leadership centers that feed into the team. Officers would access the analytical data and use suggested strategies that feed from the information centers. Under this network model, the police chief is not the centralized figure under which all direction is given. Rather, the network provides a constant stream of information and direction for the officers to act with flexibility as they adapt to emerging community challenges (Myers, 2007).

Distributed Network-Matrixed Leadership Topography

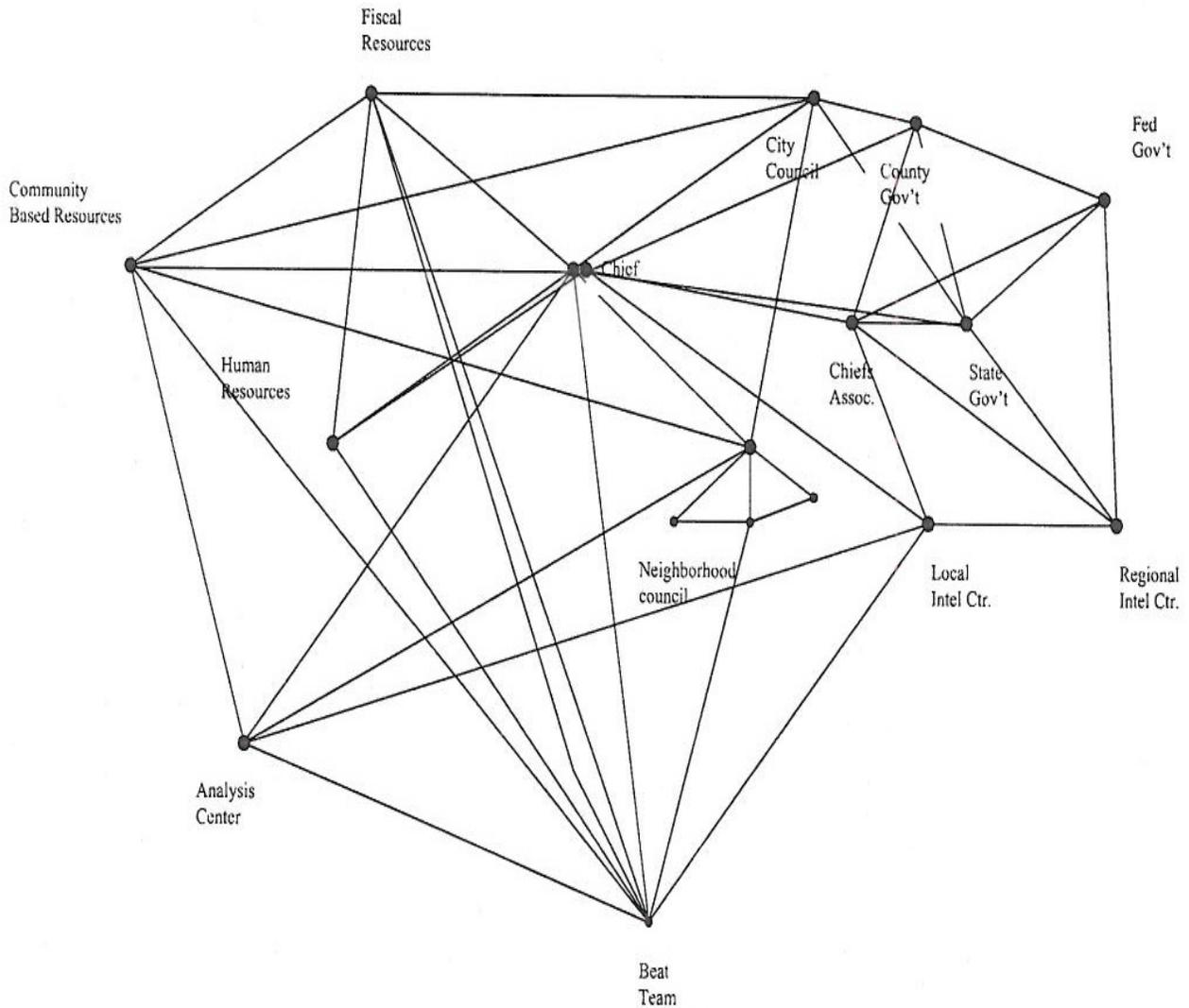


Figure 1
(Used with permission of Richard Myers)

The concept of a network-centric organization is foreign to many police administrators. During a brainstorming exercise used to explore net-centric policing, the opinions and statements from the law enforcement professionals, local politicians and

local government officials on a panel offered insight into the hurdles of a net-centric organizational structure. The citizens on the panel thought it would create confusion on who was in charge. The law enforcement professional found the concept interesting, but had many concerns on the concept of decentralizing a police organization and the ability to integrate NCP with current command and control systems. The panel struggled with the idea of not having information run through a chain of command.

If law enforcement executives begin to look towards the future to a connect-and-collaborate world, however, and to understand how the private sector is beginning to become more net-centric, they may be forced to re-exam the hierarchal structure that is so deep-rooted in American law enforcement agencies. The role of the Chief of Police and executives will change using NCP. The Chief will no longer hand down orders, but will become a part of a network that will collaborate with line-level officers, intelligence sources, local government and elected officials. He or she will have to empower and trust subordinates to be independent decision makers. The Chief, in the future, will continue to be the ethical leader and visionary to define an organization's mission, goals and objectives as well as to develop the Department's strategic plan. He or She will continue to be the public representative and leader of the police department just not from the top of a traditional chain of command.

Where do we go from here?

The net-centric concept has already been adopted in the private sector for commercial use in the travel industry (asset tracking, resource tracking, reservation systems, peak load), financial industry (transactions, transfer of assets, collaboration, wealth management, trading, peak load), transportation industry (tracking, air cargo,

supply chain, inventory), and retail industry (store disconnection, bulk data updates, automatic restocking, auction) (NCOG 2005).

To reiterate, though, with regard to a net-centric organization in police agencies: “...net-centric is such a radical departure from the traditional organizational structure that even in the most progressive of departments, it will take many years to make the transition from one to another.” (T.J. Cowper, personnel communication, August 21, 2009). To date, however, no police agency has adopted an NCP structure. While the net-centric concept may take time to become the norm in law enforcement agencies, its value cannot be disregarded as just another concept that will never work in the real world.

Criminal justice professionals need to study NCP to the extent it is developed into a workable model. Once a workable model is developed, a law enforcement agency must be willing to test NCP. It may be difficult to find an organization bold enough to adopt a new policing structure. The better solution may be to find a large organization and test it at the station or precinct level; thus allowing testing on a smaller scale. Testing at this level would allow the officer to adapt to a new policing structure yet allow traditional enforcement to return quickly if the NCP experiment is not successful; it also would allow for wider implementation if it is a success.

While testing at the local level is a step in the right direction, NCP truly needs to be adopted as the industry standard with all agencies sharing information through a network system. This would create a system where critical information can be seamlessly exchanged between agencies to those who need the information to accomplish their mission in the efficient manner possible.

Conclusion

NCP is a model that is designed for the information age, but it will have many challenges if it is ever to be implemented. Many law enforcement agencies have deep-rooted traditions and even the smallest of changes can come with objections from both management and the rank and file. The key challenge for NCP to be successful will be to first change a deep-rooted mind set; then, sustained education in re: NCP as the way of the future. NCP must have buy in from all levels of the organization and must include all stakeholders, including the community and local government in the planning and transition process.

Today NCP is just an idea; its impact on policing is truly unknown. We can, though, be assured that policing in the future will not be the same as policing today. Perhaps, when criminal justice professionals 30 years from today look back on how policing has changed; they may find that something known as NCP did not really develop much support in the early 21st century. Perhaps they will study it as a concept ahead of its time and before a progressive police agency was willing to attempt its implementation.

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References

- Abrams, R. S. (2009). *Uncovering the Network-Centric Organization Dissertation Abstracts International*, DAI-A 70/08. (UMI No. 3369629)
- An introduction to the Network Centric Operations Industry Consortium (NCOIC™)*.
March 2005 Copyright © 2005, Network Centric Operations Industry Consortium.
- Barabási, A. L. (2003). *Linked: how everything is connected to everything else and what it means for business, science, and everyday life*. New York: Plume.
- Cetron, M. J., & Davies, O. (2008). *55 trends now shaping the future of policing* (Vol. 1, Issue 1). United States Government.
- Cowper, T. J. (2005). Network centric policing: Alternative or augmentation to the neighborhood-driven policing model? In C. J. Jensen & B. H. Levin (Eds.), *Neighborhood-driven policing: A series of working papers from the Futures Working Group* (pp21). Washington, D.C.: Dept. of Justice, Federal Bureau of Investigation.
- Cowper, T. J. (2007). Information age technology and network centric policing. In J. A. Schaefer (Ed.) *Policing 2020: Exploring the future of crime, communities, and policing* (pp 71). Washington, D.C.: Dept. of Justice, Federal Bureau of Investigation.
- Friedman, T. (2007). *The world is flat: A brief history of the twenty-first century* (3rd ed.). New York, New York: Picador.
- Jensen, C. J., & Levin, B. H. (2005). *Neighborhood-driven policing: A series of working papers from the Futures Working Group*. Washington, D.C.: Dept. of Justice, Federal Bureau of Investigation.
- Myers, R.W. (2007). From pyramids to network: Police structure and leadership in 2020. In Schaefer, J. A. (Ed) *Policing 2020: Exploring the future of crime, communities, and policing* (pp 487). [Washington, D.C] Dept. of Justice, Federal Bureau of Investigation.
- Peak, K. J., & Glensor, R. W. (2008). *Community policing and problem solving strategies and practice* (5th ed.) Upper Saddle River, New Jersey: Pearson Education Inc.