

Comprehensive Data Dissemination

NDP Research – Tech Note

January 2014

Comprehensive Data Dissemination

Tech Note Number	NDP-TN-112
Problem	Dissemination of space-based remote sensing within the DoD and Intel communities involves a large number of complex systems and policies. Due to policy and evolving user needs, data dissemination is rarely examined truly from end-to-end in depth.
Opportunity	NDP proposes to reexamine global ISR data dissemination from technical and policy perspectives, to define a comprehensive vision for sustainable and flexible growth. This effort will incorporate relevant data dissemination architecture and global service architecture from commercial internet companies (e.g. Google, Twitter, Netflix). The scope will begin at ground station, to include ground station location, fixed vs. mobile ground stations, and shared ground stations. The scope will extend from there, through to end users including analysts, leaders, researchers, and in-theater personnel. This scope includes areas such as: network topology, backbone networks, local area networks, operations centers, data processing/storage centers, distributed data processing/storage, factory sites, lab/research sites, security policies, user connection/disconnection, global load-balancing, global traffic management, failover, redundancy, disadvantaged users, hardware virtualization, network virtualization, and software-defined networking. We will consider key factors such as existing facilities, network topology, and users.
Core Technology	NDP designs and implements global scale networks for mission critical systems, we design and deploy applications in private and public cloud infrastructure. We bring experience in defense and commercial networks that make use of technologies like: global traffic management, Global Server Load Balancing (GSLB), layer-7 load-balancing, and multiprotocol label switching (MPLS).
Benefit	This effort will result in a well defined end-to-end ISR dissemination architecture and corresponding policy. This will help to guide requirements for future programs and sustainment of current programs. From the architecture, it will be possible to answer questions such as: where should new facilities be built, what network topology changes are required, how can existing comm lines be best utilized, how can new users be connected quickly and cost effectively, how can architecture decision facilitate rapid accreditation for new connections, what exactly is required for new connections (software, hardware, comm, and certification), and so on.

[Click here to enter text.](#)

NDP Research – Tech Note

[Click here to enter a date.](#)

	We will define what advances in data distribution and global service architecture from commercial internet should be incorporated.
Market	Click here to enter text.
Technology	9. Actual system proven through successful mission operations
Readiness Level	
Keywords	global traffic management, global server load balancing (GSLB), GeoDNS, multiprotocol label switching (MPLS), cybersecurity, net-centric, information assurance (IA)
About NDP	NDP designs and deploys complex computer systems and networks. We also assure that these systems and networks can operate securely in cyberspace. By integrating sound net-centric designs into our customer systems, we enable them to gain a competitive advantage that translates to mission effectiveness. We primarily support DoD, Intel and Federal customers and currently expanding our offerings to the commercial and academic markets. We are a customer-centric, technology-centric and people-centric company.

This paper is for informational purposes only. NDP LLC disclaims all liability, including liability for infringement of any proprietary rights, relating to use of information in this paper. No license, express or implied, by estoppels or otherwise, to any intellectual property rights is granted herein.

NDP, LLC | 2575 Pearl Street, Suite 220 | Boulder CO 80302 | Phone: (303) 339-0853 | Fax: (303) 325-5136

Learn more at ndpgroup.com.