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DIRECTOR'S CORNER

Availability...the goal of Operations

Nlets can be compared to your electric company—as long as your electricity is available, you may not think about it much. As long as your lights are there when you need them, it may not really matter exactly how that electricity was delivered or what steps were taken to ensure that it reaches you. It's not until your electricity fails you that you think about its importance.

Officers at roadside count on Nlets to be there when they need it. Access to information is as important to them as having the proper equipment on their belts to protect lives and property. The Nlets Operations staff is focused on always being available, 24 hours a day, 7 days a week, 365 days a year.

Over the last year, we have made significant strides in our level of redundancy and our ability to quickly recover from natural or manmade disasters.

Nlets implemented a fully operational disaster recovery site in Kentucky for its critical systems. During 2010, several failover tests were conducted with great success. Cutover times ranged from 15 – 44 minutes, and our *Technical Strategic Plan* 5-year goal is to be able to have both infrastructure locations in an Active – Active configuration. Plans in the near future will be to test our site midyear.

Last year, we spent hundreds of thousands dollars to replace our core switching equipment with Cisco's Nexus product line. It was one of the largest projects Nlets has embarked on since moving into the new building.

The Enterprise LAN switching upgrade was engineered to provide total redundancy to the Nlets LAN, improving core service delivery. The project involved replacing the two core network routing switches and installing 12 additional layer two devices throughout the datacenter, remedying any single points of failure in the network infrastructure. The project also involved improving the transports that can navigate the transition to 10 Gigabit Ethernet and unified fabric handling architectural changes such as virtualization, SAN attached storage, and future cloud computing.

Another initiative was to implement a wide area backup solution for all of the 100+ locations connected to our private, secure, MPLS network. 3G Wireless WAN HWICs cards were placed in our remote site routers to allow secure VPN tunnels to connect back to the datacenter. Where signals are not available, Nlets continues to use other routing solutions; for example, in such areas, the FBI's network is used to route traffic back to the host.



Our 24-hour NOC monitors all nodes to ensure our response times and availability remains at the level our users have been accustomed to... That's 99.97% availability on systems and 99.96% on network—and, we won't stop till we reach the "five 9s" across the board:

- **Availability %**
 - 99.999%
- **Downtime per Year**
 - 5.26 minutes
- **Downtime per Month**
 - 25.9 seconds
- **Downtime per Week**
 - 6.05 seconds

Kurt Anzelmo, *Director of Operations*

NEWS FROM OPERATIONS

REDUNDANCY, REDUNDANCY, REDUNDANCY

Redundancy refers to building or designing in to the equipment a number of systems that can "take over " if one part of the system fails to work—to have components, which are critical in the working of a device, duplicated. This ensures increased reliability in the system by allowing the redundant system to perform the same duty without failing the primary system.

When considering redundancy, it is important to examine "total cost" (*i.e.* soft/unrealized costs) as compared to the bottom line (*i.e.* What will it cost to increase redundancy?). More often than not, avoiding complete system failure outweighs the cost of equipment. Here are a few ways Nlets is working to improve system redundancy.

Back-up Routers

In 2009 and 2010, Nlets migrated an MPLS network. With the exception of disaster recovery sites, this included configuration of a back-up Nlets Cisco router for each customer. In the event of an Nlets hardware failure at the remote location, manual intervention (*i.e.* switching to the back-up router) by the customer allows for reduced downtime.

Wireless

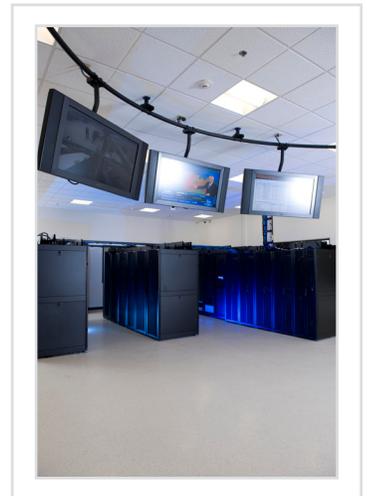
In addition to backing up Nlets hardware, Nlets has embarked upon a project to provide seamless connectivity to our uses via AT&T Wireless.

When using AT&T's Wireless WAN Connectivity Service in conjunction with the Cisco 3G Wireless WAN HWIC solution, states will have a truly diverse and highly secure wireless broadband backup to the Nlets/AT&T data connection should it be disabled by cable cuts, weather or local access outages. The Cisco 3G Wireless WAN card would be installed in the HWIC1 port of the primary Nlets Cisco 2811.

Nlets configures the network so that the Wireless WAN Connectivity Service automatically activates should the wired connection be interrupted, thus achieving the truly redundant network architecture that helps ensure that critical applications keep running. An encrypted AES 256 VPN tunnel is created between the Cisco 2811 and a Cisco ASA 5510 within the Nlets network. This connectivity will remain active until the wired connection is restored.

Improving the wireless signal

Nlets is committed to providing the best possible service. In doing so, we sometimes need assistance from users at the remote sites. There are a variety of ways to improve the wireless signal, including, but not limited to:



- Cabling
- Antenna extensions
- Signal boosting system

If you are interested in wireless connectivity or have any questions, contact Operations Coordinator Art Valdez at avaldez@nlets.org.

Disaster Recovery

The Nlets disaster recovery (DR) solution used to be a single cabinet that housed only core systems, with basic network equipment and a frame-relay network. Cutover was manual and required physical intervention. It became clear that Nlets needed a better way to replicate data; systems at least equal to those at headquarters; better control and management of systems; an improved network recovery model; and, less overall risk.

Nlets now has both additional on-site and remote redundancy disaster recovery solutions. There is a fully virtualized, off-site datacenter with additional Nlets applications and resources that runs on an MPLS network with additional bandwidth. The network topology is more similar to headquarters, with the same VLAN structure and firewall context model. The DR site also has automatic failover to 3G wireless (*discussed above*); however, this has not yet been set up. Risks have been resolved, and Nlets continues to explore new ways to improve DR solutions.

Virtualization

The basic concept of virtualization is that operations are not tied to a single piece of equipment – a server can be easily/automatically moved from the failed piece of equipment.

Nlets leverages virtualization to increase availability and disaster recovery response time in order to better support customers. Virtualization abstracts the operating system’s reliance on hardware. Traditionally, if business critical systems had experienced a hardware problem, users would not be able to send and receive an Nlets message. Now, with virtualization, the application may be moved to an alternate piece of hardware without disrupting user access. The ability to move the system without users losing connectivity provides increased efficiency and security.

Virtualization also has a positive impact on the real world. Instead of using multiple standalone systems, Nlets can have fewer physical systems running any number of virtual servers. This process employs less power for running and cooling, resulting in a positive impact on the environment. Further, consolidated space at the Nlets facility means more physical space for customers.

FBI CJIS AUDIT OF NLETS



During February 2011, the FBI’s Criminal Justice Information Services (CJIS) Division, CJIS Audit Unit (CAU), conducted the second cycle Information Technology Security Audit (ITSA) of Nlets.

The FBI CAU’s ITSA is designed to ensure compliance with the CJIS Security Policy through a review and analysis of the Nlets administrative policies and procedures to protect FBI CJIS data. The FBI CAU conducted an administrative interview with Bill Phillips, Nlets Information Security Specialist, and conducted a network inspection of the Nlets headquarters.

During the audit, the FBI CJIS auditors determined that Nlets had implemented all applicable components of the *CJIS Security Policy*. Components included that Nlets had an Information Security Officer who had established a documented security program plan. Security training was also provided to personnel responsible for FBI CJIS systems and data. Additionally, Nlets had established a security violation and reporting procedure.

During the network inspection, the FBI CJIS auditors determined that Nlets had established appropriate measures to ensure physical and logical security of the infrastructure that carries and supports FBI CJIS data. Additionally, Nlets ensured that appropriate background screenings were conducted on personnel with access to FBI CJIS systems and data. Nlets had implemented the required data protection strategies to include encryption, authentication and threat mitigation to protect FBI CJIS data from unauthorized access.

The results of Nlets second cycle audit will be forwarded to the June FBI CJIS Advisory Policy Board's Ad Hoc Sanctions Subcommittee. Further correspondence will be forthcoming from the Subcommittee. As stated in the letter of compliance:

The FBI CAU sincerely appreciates your hard work and dedication to remain compliant with the CJIS Security Policy. The FBI CAU would also like to specifically recognize and thank Mr. Bill Phillips for his efforts and assistance throughout the audit. We value the working relationship that has been established between our staffs as we strive to ensure the integrity of the FBI CJIS systems and data.

NEW TRANSACTIONS

At the end of 2010, Nlets was able to implement two new transactions: Bulk Cash Smuggling and General Purpose.

Bulk Cash Smuggling Transactions

Working with the national Bulk Cash Smuggling Center (BCSC), a division of ICE, Nlets is now providing a bulk cash query. This transaction provides our users with the ability to access BCSC resources. The BCSC has 24/7 access to all of ICE's customs and immigrations databases. The BCSC also coordinates and exploits information related to all domestic and international currency seizures; and, provides assistance to any law enforcement agency involved in a current seizure. Nlets supports this transaction in legacy text, as well as in XML.

Sample Query

```
BCQ.AZNLETS20.PY.*USERSGUIDE.TXT ATN/DETECTIVE SMITH.PHN/602-555-1234./NAM/DOE,JOHN.DOB/19900105.SEX/M
```

Sample Return Message

```
BCQ.AZNLETS20
23:13 10/08/2010 00128
23:13 10/08/2010 00219 PY
*USERSGUIDE
TXT
ATN/DETECTIVE SMITH.PHN/602-555-1234.NAM/DOE,JOHN.DOB/19900105.SEX/M
```

General Purpose Transactions

Nlets, in conjunction with the United States Department of Homeland Security, made available the Law Enforcement Information Sharing Service (LEISS) via your agency's connection to Nlets. The purpose of LEISS is to facilitate the sharing of information from Immigration and Customs Enforcement (ICE) Pattern Analysis and Collection Core (ICEPIC Core) System databases with Federal, State and local law enforcement agencies. An LEISS query transaction searches ICEPIC for Person Subjects to return complete biographic and biometric data on the Subject. Nlets supports this transaction in legacy text, as well as in XML.

Sample Query

```
GPQ.AZNLETS22.AX.*USERSGUIDE.TXT NAM/MOUSE, MICKEY
```

Sample Return Message

```
GPQ.AZNLETS20
23:13 10/08/2010 00128
23:13 10/08/2010 00219 PY
*USERSGUIDE
TXT
NAM/DOE, JOHN
```

EVENTS & SAVE THE DATES

EASTERN REGIONAL NIEM TECHNICAL TRAINING COURSE

The IJIS Institute, through grant funding provided by the Bureau of Justice Assistance, is hosting an **Eastern Regional NIEM Technical Training Course May 17-19, 2011 in Ashburn, VA.**

This 3-day technical course is intended for information exchange developers and implementers and is designed to guide students through the National Information Exchange Model (NIEM) in a structured process. The NIEM Technical Training curriculum is designed for developers and practitioners in the field to provide the information needed to enable them to build applications using NIEM and use it effectively.



The training course will cover the following modules:

- NIEM 101 - Technical Introduction to NIEM
- NIEM 300 - IEPD Discovery and Development
- NIEM 301 - NIEM Advanced Technical Concepts
- NIEM 302 - Construct and Validate an IEPD
- NIEM 303 - Assemble, Publish, and Implement an IEPD

This course focuses on an overview of NIEM and practical implementation techniques, and includes hands-on exercises reinforcing key NIEM concepts. Lessons will guide participants through the XML terminology and concepts specifically used by NIEM, as well as the process of building Information Exchange Package Documentation (IEPD) through instructor led exercises. The exercises guide students through the step by step process of building a NIEM conformant exchange by creating an exchange content model, mapping objects to NIEM, schema subset generation, development of extension and exchange schemas, and packaging and distribution methods. The course instructor will spend time bringing all of the components of the training together, providing examples, and responding to questions. Students should expect exercises to be conducted requiring student participation. Students are strongly encouraged to bring a laptop for class work.

Students interested in attending this class, note that prior XML experience is strongly recommended.

Dates

- Tuesday, May 17, 2011 through Thursday, May 19, 2011

Class begins each day at 8:30 AM and ends at 5:00 PM. Meals will not be provided.

Training Location

George Washington University - Virginia Campus
Enterprise Hall
44983 Knoll Square
Executive Classroom #105
Ashburn, Virginia 20147

Cost to Attend

- Federal/State/Local/Tribal government employees: \$195
- All other students: \$395

For questions or more information about the NIEM Technical Training Course, please contact the IJIS Training Department at training@ijis.org.

NLETS ANNUAL BUSINESS MEETING

Planning is underway for the 2011 and 2012 Nlets Annual Business Meetings.

2011 Nlets Annual Business Meeting

June 27-30

Hilton Burlington Hotel

Burlington, Vermont

[REGISTER NOW!](#)

2012 Nlets Annual Business Meeting

June 25-28

Waikoloa Beach Resort and Spa

Waikoloa, Hawaii



2011 STARS WORKSHOP

The 2011 STARS Workshop registrations is available [NOW!](#)

- The workshop will open with a 'Get Acquainted Reception' on *Sunday, May 15*. Presentations will start on *Monday, May 16*, and will conclude on *Wednesday, May 18*.

The STARS Workshop is your foremost resource providing the tools and education for the perpetual re-visioning necessary to keep you on the leading edge of excellence. This past year has seen many challenges and changes, budget shortages never before experienced, and a not-so-promising economic forecast; however the demands placed upon each of our agencies, and upon each of us, march on without missing a beat. And likewise, being the dedicated individuals we are, we will consistently strive to over-deliver. The hallmark of the STARS Workshop is to help by providing practical information and tools capable of being immediately used and implemented.

One of the single biggest issues facing all CJIS users is the implementation of the new CJIS Security Policy, Version 5.0. Like all previous versions, this policy contains information security requirements, guidelines, and agreements reflecting the will of law enforcement and criminal justice agencies for protecting the sources, transmission, storage, and generation of Criminal Justice Information (CJI); and the Personally Identifiable Information derived from CJI.

Version 5.0 brings many changes, the least of which is the auditing requirement of non-criminal justice agency use of the system. This and the other aspects of changes will be discussed by representatives of the FBI, the Georgia Bureau of Investigation, and the training, audit, and ISO staff of various state programs. These and the other presentations will deliver the information critical to increasing the efficiency of our various systems, and ultimately the safety and security of our citizens.

Throughout the three days of the workshop you will receive succinct, yet consistent, messages of positive attitudes, ideas, and leadership qualities.

The diversity of the presenters and topics is intended to foster a unique educational experience encouraging attendees to expand their thought process, and thus, their cadre of leadership skills.

The STARS Workshop provides a one-of-a-kind environment for expanding your leadership skills and broadening your networking opportunities through using the breaks, meal times, and evening hours to visit with like-minded colleagues. Collaborative partnerships are essential to the success of our organizations'; please take a moment to express your gratitude to each of our partners (sponsors) who will also be in attendance throughout the conference.

Practitioners involved, at any level, in FBI CJIS and/or Nlets Training & Education, Auditing, Information System Security, system use, or related software or hardware development or consulting **are strongly encouraged to attend**. Any active or retired members of the public safety/criminal justice professions are also welcome.

NLETS IMPLEMENTERS WORKSHOP

Unfortunately, due to the current economic climate and budgetary restraints on conference attendance and travel, *Nlets* is switching to an every-other-year format for the workshop.

The 8th Nlets Implementers Workshop will be held in the **Fall of 2012**.

ANNOUNCEMENTS

IN MEMORIAM

It is with deep sadness that we announce the loss of Russ Brodie, Senior Project Manager at Nlets. On Monday, March 14, Russ lost his battle with cancer. Russ was not only a hardworking member of the Nlets family, but a caring husband to Bridget and a wonderful father to three sons, Ben, Noah and Sam.

The funeral and burial took place Thursday, March 17 at Mt. Sinai Cemetery. Nlets was closed (except for essential services) all day, so staff could attend services and support the Brodie family.

The family has asked for donations in Russ's name in lieu of flowers or other memorials to:

Sereno Soccer Club
10801 N. 32nd Street
Phoenix, AZ 85028-3241
602-996-5754



Russ and Bridget's sons are soccer players and Russ was the perfect soccer Dad, toting them around Arizona and the Southwest for soccer tournaments!

NEW REPS

Nlets is pleased to announce:

- *Dawn Brinningstaull* as the new Nlets representative for **Michigan**.
- *Frank Dubiel* as the Nlets representative for the **Department of State**.
- *Ronald Jesz* as the Nlets representative for the **Social Security Administration, Office of the Inspector General**.
- *Jeffrey Johnson* as the new Nlets representative for **U.S. Postal Inspection Service**.
- *Jeffrey Raynor* as the new Nlets representative for **Arizona**.
- *Tim Shaub* as the new Nlets representative for **New Jersey**.
- *Tim Struck* as the new Nlets representative for **New Mexico**.

CONTACT US

TECHNICAL SUPPORT

Call the Nlets Network Operations Center at **800-528-4020** for technical support.

ASK STEVE

Nlets Executive Director Steve Correll is always available to answer your questions.

Please send your questions to asksteve@nlets.org.

FEEDBACK

We welcome your feedback on:

- Questions or comments regarding the current issue;
- Ideas for future newsletter content; or,
- Corrections.

Contact us at info@nlets.org.

