

# Transition to enterprise cloud-based learning

By Patrick Baker

The U.S. Army Signal Center of Excellence is leading the way as an enterprise cloud-based training institution with the development and integration of LandWarNet eUniversity across all training domains.

LWNeU provides the enterprise on-line training capability for all Signal proponent training, C4 sustainment training and new equipment training for Soldiers, units and the joint community. LWNeU and its hosted services and communities combine to make the largest and most agile digital learning community in the Army.

## Moving to the Cloud

E-learning as a cloud service is a natural progression and an essential capability the Army must embrace to train the force. While the Army's transition to an e-learning supported training architecture has recently accelerated as an answer to reduce costs in our emerging fiscal environment, the real result of this transition will be an increase in Soldier and unit training capabilities.

The SIGCoE development of LWNeU as a cloud training service creates a virtual training

(Continued on page 14)

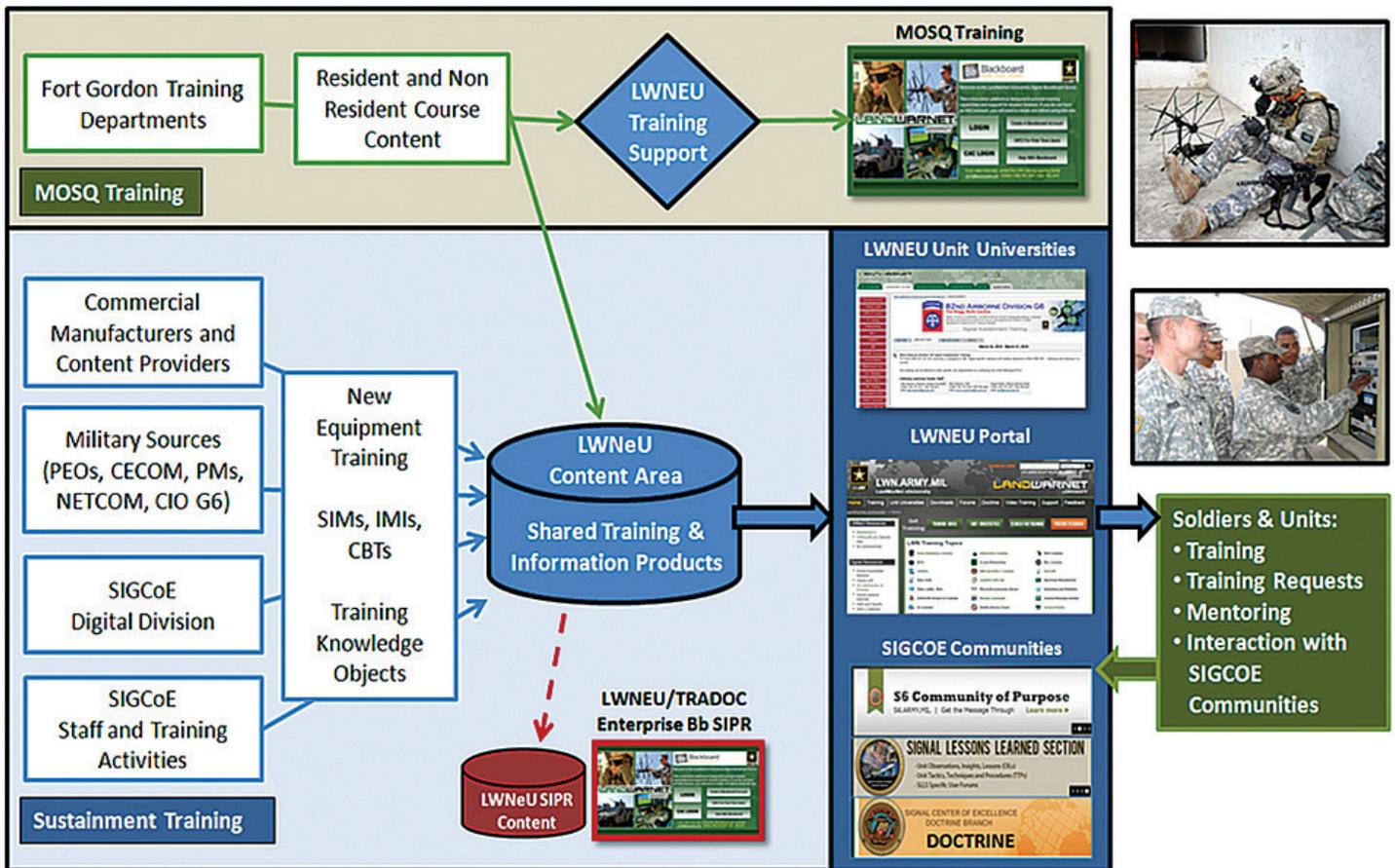


Figure 1: LWNeU Training Flow - Management and delivery of consolidated training and knowledge objects

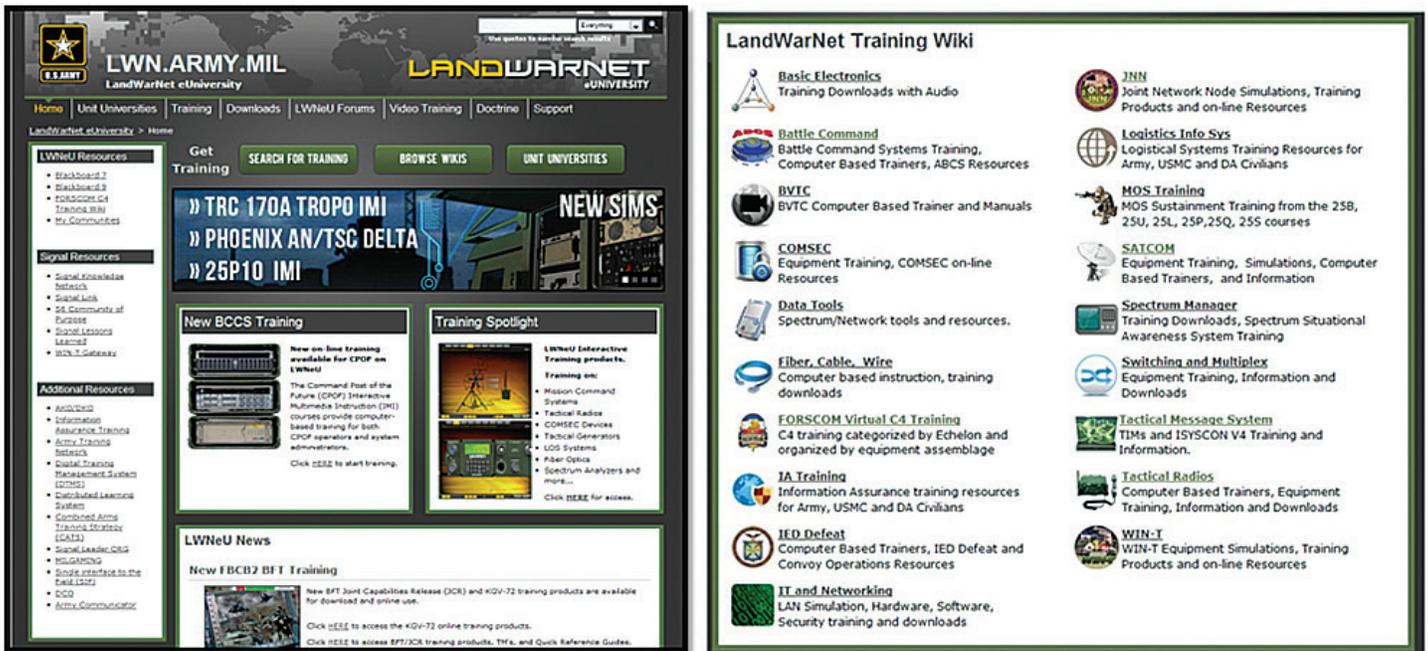


Figure 2: LWNu Portal - New training announcements and categorized training interface

(Continued from page 13)

environment capability providing Soldiers and units with formal and situational training regardless of the location of the user (See Figure #1).

## LandWarNet eUniversity

LWNu hosts and manages

on-line SIGCoE proponent training, C4 training products and Information Technology educational content for Soldiers, leaders, and DA civilians.

LWNu resident and non-resident training operations: LWNu uses Blackboard as the e-Learning delivery platform to host, manage and deliver formal, MOS producing

content, testing and course/student management for both resident and non-resident MOSQ training.

LWNu unit, sustainment and self-development learning operations: The SIGCOE developed the LWNu Portal as a robust e-learning and web portal that contains over 15,000 training and information products. The LWNu portal provides

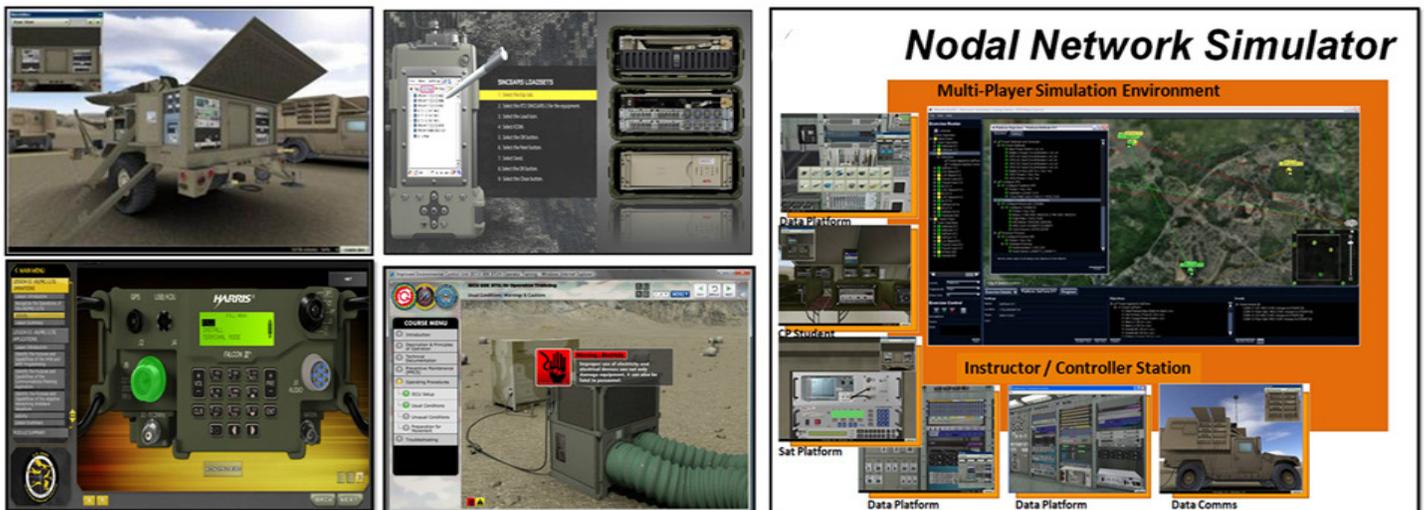


Figure 3: LWNu Interactive on-line and downloadable computer-based training products

access to C4, IT and many other types of sustainment training.

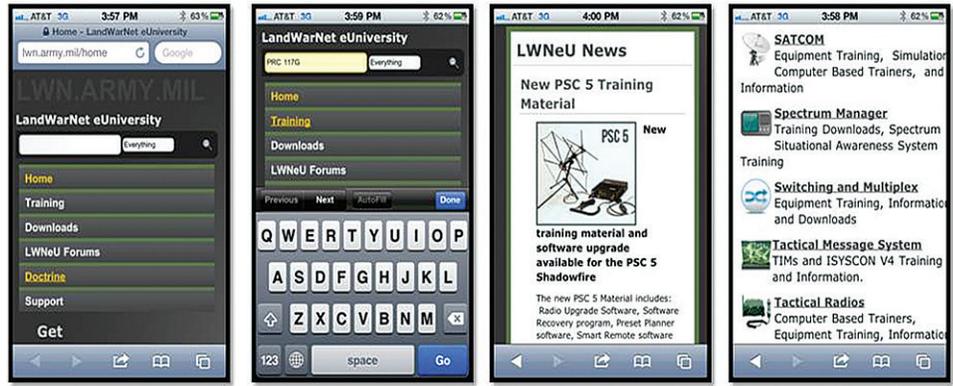
LWNeU is the Enterprise capability used to host and manage on-line virtual training, interactive multimedia instruction, computer based trainers and simulator products for the Army communications community.

These virtual training products provide crews, leaders, and units with realistic training experiences when equipment for hands-on training is not available or in situations when it is not practical to use actual systems to train. These products are available for use on-line and as downloads for laptop and desktop computers (See Figure #4).

Virtual Training products are notably useful for:

- Reinforcing training and learned skills at the end of an on-line course
- As part of a NET event where the actual equipment is not available
- During missions and for tasks that cannot be trained because the equipment is in use supporting the Unit's mission

LWNeU managers collaborate with equipment manufacturers, training developers, course providers and other trusted entities to obtain products and host formal and sustainment training for systems that interact with the LandWarNet. The LWNeU system hosts products for many other schools and organizations (e.g. Infantry Center, PM Mission Command, PM COMSEC, CECOM, MilWiki, etc.) and is a primary aggregator for the majority of Army C4 digitized



**Figure 4: LWNeU Mobile Device Layout – Interface adjusts to work with any mobile device**

training products. LWNeU supports on-line training for multiple commands, units and Army entities.

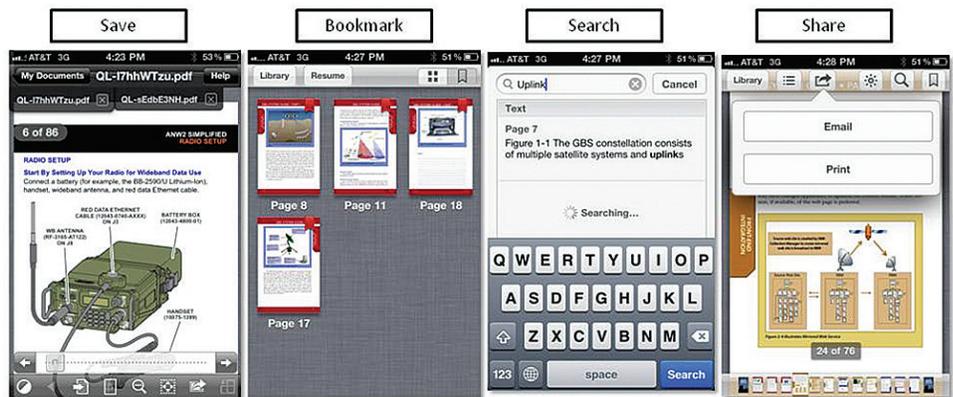
All products and information on LWNeU are vetted by subject matter experts, meta-tagged and fully searchable. The LWNeU Content System indexes all training content to include content and information contained within the products; providing a quick and robust search capability for the user. LWNeU manages training content with business processes that support many diverse applications and missions. LWNeU provides versioning and knowledge management of training ob-

jects, Proponent School training courses and external sourced equipment information.

### *LWNeU Mobile Learning Capabilities*

The LWNeU Portal is capable of multiple configurations and provides access for mobile devices capable of accessing the internet using a mobile web-browser. LWNeU can be accessed using any mobile web-capable device using AKO username/password. The Portal identifies the mobile device accessing the portal and automatically applies a style sheet

(Continued on page 16)



**Figure 5: LWNeU Mobile – Users are able to download/save training to mobile devices**



Figure 6: LWNu unit universality – Tailored training and support for units

(Continued from page 15)

based on that device to simplify the user's access to training. Style sheets simplify the user interface so they can see what's new and search and access LWNu Training (See graphic # 5).

Users can choose to view the majority of LWNu training directly on their mobile device on-line or save them directly to their mobile device based on the capabilities of each individual device. Most mobile devices and 3rd party apps provide the capability to save, search,

index, bookmark, print, e-mail, and share knowledge objects (See Figure #6).

### LWNu Unit Universities

The SIGCoE's enterprise unit web-training capabilities are called Unit Universities. These are on-line training instances that contain all LWNu sustainment training, simulations, and web-based training for Army/Joint units and NECs. LWNu unit universities also contain requested courses and training products that can be tailored to each unit's training requirements.

Unit universities provide:

- Training products and support for Units in Theaters of Operation NIPR/SIPR
- Training products and support for Home Station Training and ARFORGEN
- Immediate training response to units for mission training requirements
- Support to Mobile Training Teams.

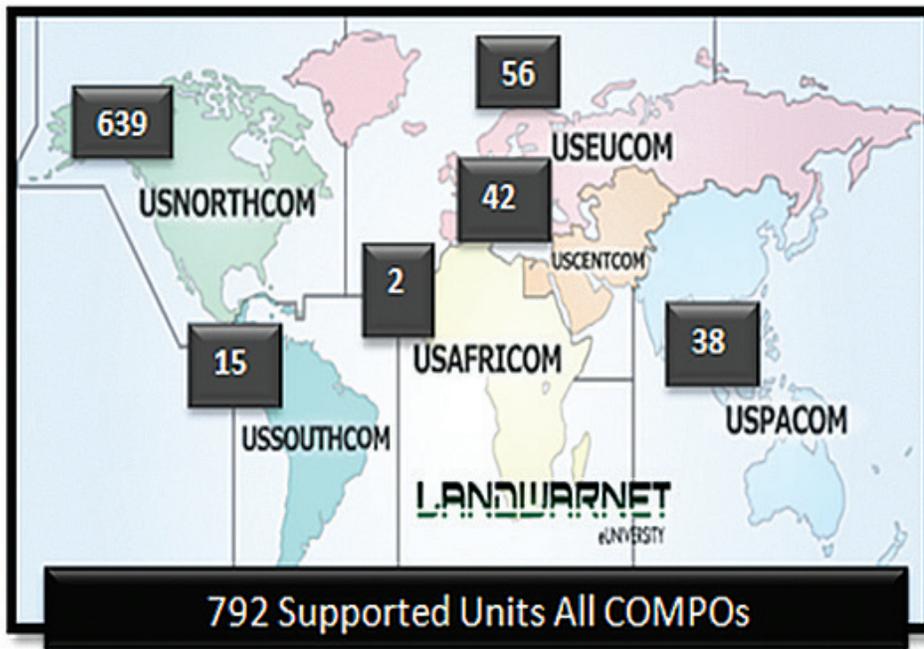


Figure 7: LWNu Unit universality – Worldwide support and access

Unit university training content is web-based and accessible 24 hours, 7 days per week to Soldiers (Active, Reserve, and National Guard) and DA civilians with an AKO account. Unit training staffs have full control of their university and can also load training created by their unit onto their University. Incorporated into every Unit University are tools for leaders to manage and monitor the progress of their Unit's training. LWNeU unit universities provide an on-line capability that improves a Unit's capability to adapt to changing missions in support of the commander's training vision.

### *Blended Training for the Reserve Component*

LWNeU pioneered the SIGCOE's on-line blended learning solution for Army RC Signal MOS Transition. This solution uses POIs and training content created specifically for on-line MOS courses. Soldiers transitioning to a Signal MOS can now take the majority of an MOS course on-line. To qualify in the MOS, the

Soldier attends a resident Capstone validation portion that is completed at their nearest Reserve Component Regional Training Institute. LWNeU supports MOS-T courses for 18 USAR Regional Training Institutes and High Tech Reserve Schools across the U.S. and Puerto Rico.

Currently Soldiers can register for these courses in ATRRS to transition to MOS 25B, 25U, and 25L. On-line courses are available for MOSs 25Q and 25C, however these courses do not lead to certification. are currently in development. This training initiative saves \$30M per year in unit training costs used to activate and send Soldiers to the SIGCOE for MOS training (See Figure #8).

Additional benefits for MOS-T Blended on-line learning:

- Provides a path to address RC critical MOS shortage issue
- Soldiers continue to train/drill with unit
- Soldiers can reinforce training and skills with NCOs at unit
- Positive factors for Soldier retention

(Continued on page 18)

Ft Gordon LLC MOS Transition Program Metrics FY09 thru FY12			
FY/MOS	Graduates	Savings per Student	Yearly Savings
<b>FY09</b>			
25B	335	\$23,500	\$7,872,500
25U	482	\$19,700	\$9,495,400
<b>Total</b>	<b>817</b>	<b>Savings for FY09</b>	<b>\$17,367,900</b>
<b>2010</b>			
25B	1170	\$23,500	\$27,495,000
25U	540	\$19,700	\$10,638,000
<b>Total</b>	<b>1710</b>	<b>Savings for FY10</b>	<b>\$38,133,000</b>
<b>2011</b>			
25B	643	\$23,500	\$15,110,500
25L	63	\$14,850	\$935,550
25U	396	\$19,700	\$7,801,200
<b>Total</b>	<b>1102</b>	<b>Savings for FY11</b>	<b>\$23,847,250</b>
<b>2012</b>			
25B	270	\$23,500	\$6,345,000
25L	29	\$14,850	\$430,650
25U	186	\$19,700	\$3,664,200
<b>Total</b>	<b>485</b>	<b>Savings 1 &amp; 2 QTR FY12</b>	<b>\$10,439,850</b>
<b>Total Savings FY09 thru 2nd Qtr FY12</b>			<b>\$89,788,000</b>

Participating HRTS and RTIs	
<b>25B10-MOS-T</b>	<b>25U10-MOS-T</b>
<ul style="list-style-type: none"> <li>• Sacramento (HTRTS)</li> <li>• Tobyhanna (HTRTS)</li> <li>• PEC/233rd RTI (Arkansas)</li> <li>• 122nd RTI (Georgia)</li> <li>• 124th RTI (Vermont)</li> <li>• 218th RTI (South Carolina)</li> <li>• 421st RTI (Nevada)</li> <li>• 640th RTI (Utah)</li> </ul>	<ul style="list-style-type: none"> <li>• PEC/233rd RTI (Arkansas)</li> <li>• Sacramento (HTRTS)</li> <li>• Tobyhanna (HTRTS)</li> <li>• 122nd RTI (Georgia)</li> <li>• 129th RTI (Illinois)</li> <li>• 136th RTI (Texas)</li> <li>• 193rd RTI (Delaware)</li> <li>• 218th RTI (South Carolina)</li> <li>• 421st RTI (Nevada)</li> <li>• 640th RTI (Utah)</li> </ul>
<b>25L10-MOS-T</b>	
<ul style="list-style-type: none"> <li>• 3/80th (West Virginia)</li> <li>• 3/95th (Oklahoma)</li> </ul>	<ul style="list-style-type: none"> <li>• 3/100th (Indiana)</li> <li>• 3/108th (Georgia)</li> </ul>

Figure 8: LWNeU MOS-Transition training program savings

(Continued from page 17)

- Soldiers stay at home during dwell time
- Soldiers can train without losing time at civilian job

### **TRADOC Enterprise Training on SIPR**

LWNeU operates the TRADOC enterprise training capability on SIPR for all TRADOC proponent schools and unit or organization requiring training using the SIPR network. LWNeU has the capability to host any training or information product on SIPR by integrating the product into the LWNeU SIPR portal or by creating a SIPR web-capability to be used and managed specifically by any TRADOC Proponent School, Unit or Organization. The majority of training currently hosted on LWNeU SIPR is unclassified training used to support training for Soldiers that work in classified areas that only have access to the SIPR network. LWNeU also creates SIPR unit universities for Units that need to track and manage their unit training on SIPR.

LWNeU SIPR currently supports content

hosting, training support and applications for:

- 5 Major commands (Army/joint)
- 5 TRADOC proponent schools
- PEO and mission organizations (e.g. PD COMSEC, PM Tactical Mission Command)
- CECOM
- 14 units (joint, divisions, brigades, NEC, secure organizational enclaves)

*Mr. Patrick Baker serves as chief, Digital Training and doctrine Branch in the Directorate of Training at the U.S. Army Signal Center of Excellence. He entered civil service in September, 1998. He is a graduate of the Department of the Army Training Development Intern Program. After completing the intern program, Mr. Baker was assigned as a Training Developer in the Regimental Officers' Academy. He then moved to the U.S. Army Computer Science School where he also worked as a training developer for Warrant Officers Professional Military Education. This was followed by assignments in the 15th Signal Brigade as the 25Q Training developer and chief of the Area Communication Training Development Branch. He has served in his current assignment since 2007. Mr. Baker holds degrees in Education, History, European History and Political Science.*

## ACRONYM QuickScan

**AKO** - Army Knowledge Online

**Bb LMS** - Blackboard Learning Management System

**C4** -Command, Control, Communications, and Computers

**CECOM** - Communications Electronics Command

**CIO G6** - Army Chief Information Officer

**COMPO** - Component

**IT** - Information Technology

**LWNEU** -LandWarNet eUniversity

**MOSQ** - Military Operational Specialty Qualification

**NEC** - Network Enterprise Center

**NET** - New Equipment Training

**NETCOM** - Network Enterprise Command

**NIPR** - Non-Classified Internet

Protocol Router Network

**PEO** - Program Executive Office

**PM** - Program Manager

**POI** - Program of Instruction

**SIGCOE** - U. S. Army Signal Center of Excellence

**SIPR** - Secure Internet Protocol Router Network

**SME** - Subject Matter Expert

**TRADOC** - U. S. Army Training and Doctrine Command