



THE NETWORK OF 2020



Powering America's Army • Always Networked • Always On

LTG Susan S. Lawrence

Chief Information Officer/G-6

AMERICA'S ARMY: THE STRENGTH OF THE NATION
ARMY STRONG



Agenda

- ★ The Network of 2020 – Powering America's Army
- ★ Warfighting Effect - The Network is a Game Changer
- ★ The Need for Change
- ★ The Operational View
- ★ Network Modernization
- ★ The Road to 2020
- ★ How You Can Help



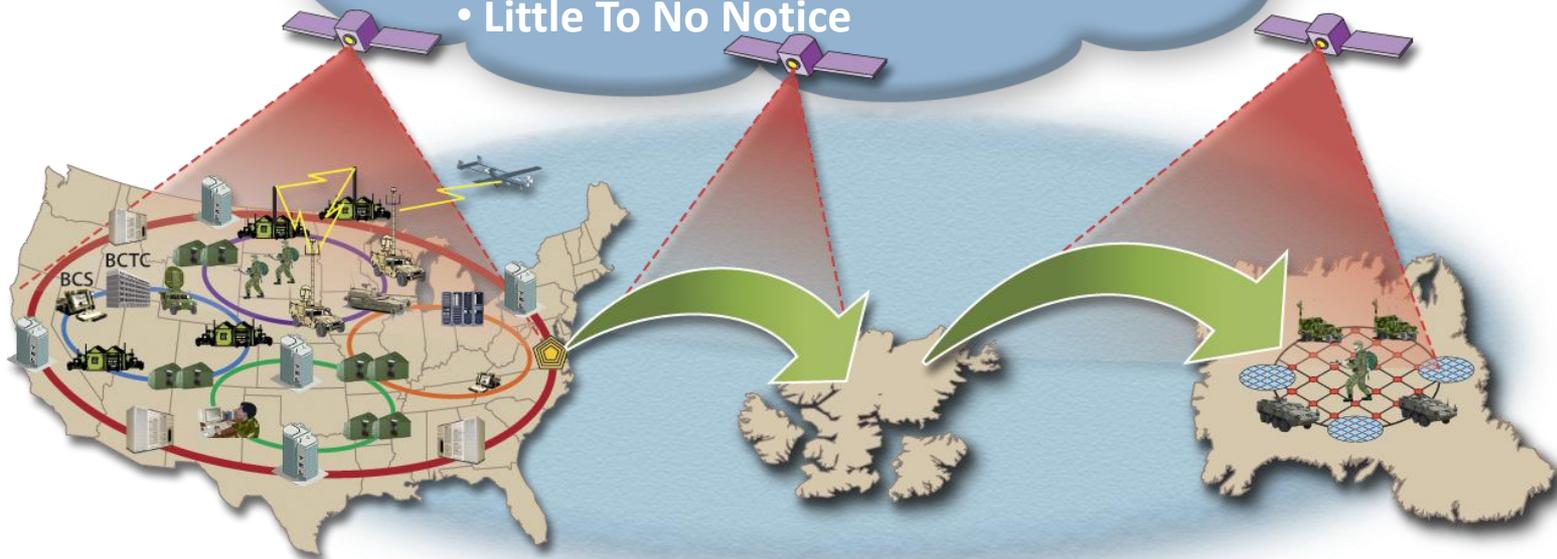
The Vision

“The Network of 2020 – Powering America’s Army”

Building the Army of 2020

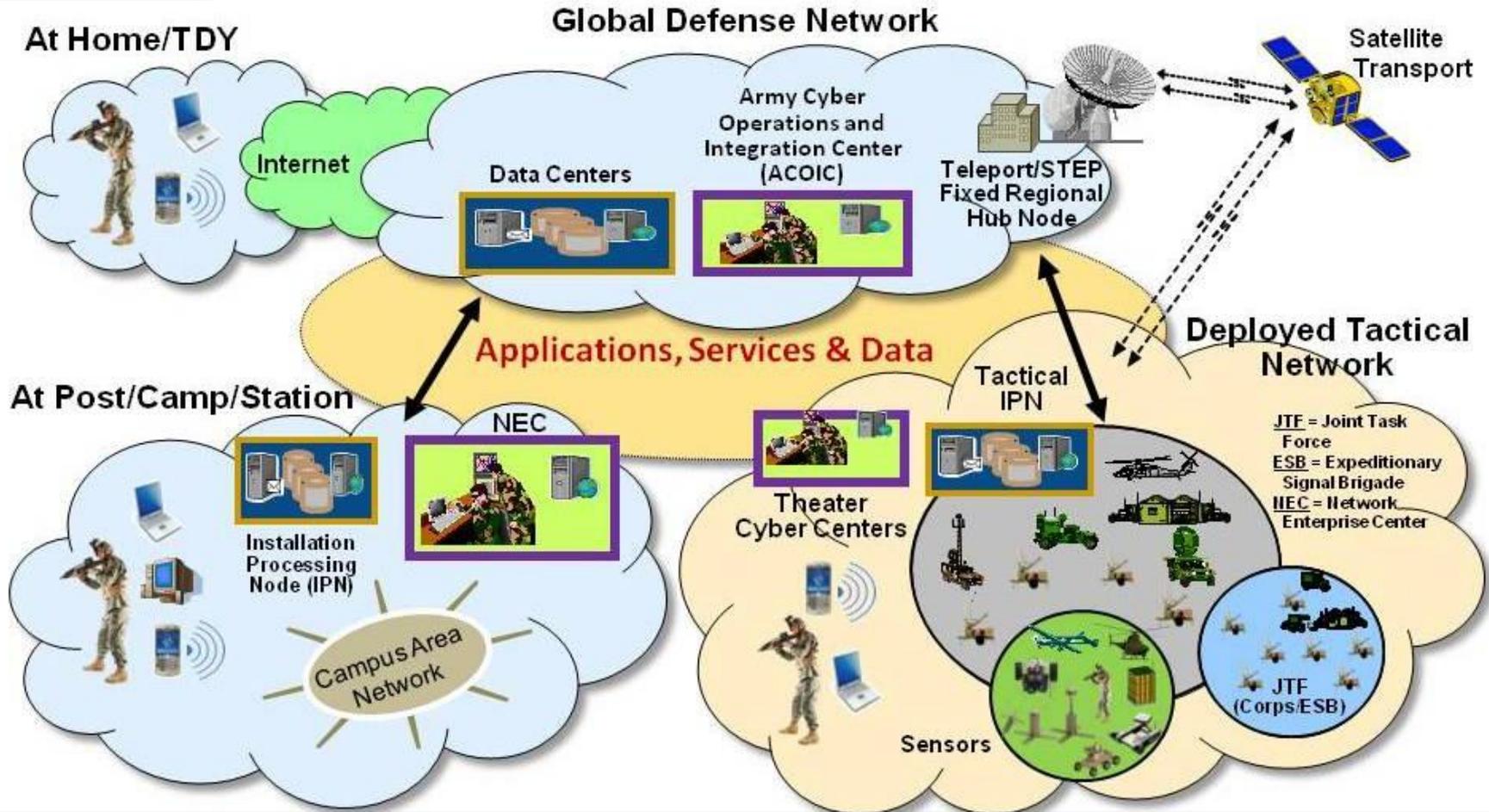
80% CONUS-Based Army

- Smaller, More Capable
- Better Trained, Must Train As We Fight
- To Any Austere Environment
- Little To No Notice



“Always Networked – Always On”

The Network of 2020 "Powering America's Army"



The Network of 2020 Imperatives are A **Single, Secure, Standards-Based** Environment; Enable **Global Collaboration**; Ensure **Access at the Point of Need**; and Most Importantly the Network is **Capable, Reliable and Trusted**



Network Imperatives

★ Single, Secure, Standards-Based Network

- Single ID... Worldwide
- Enabling Global Expeditionary Operations in Austere Environments; Fight Upon Arrival
- Underlying Standards (COE & EoIP) for Rapid Integration of Emerging Technology

★ Enable Global Collaboration

- Collaborating Across the Joint, Interagency, Intergovernmental, and Multinational (JIIM) Environment
- Bringing Synergy to Multiple Communities of Interest

★ Access at the Point of Need

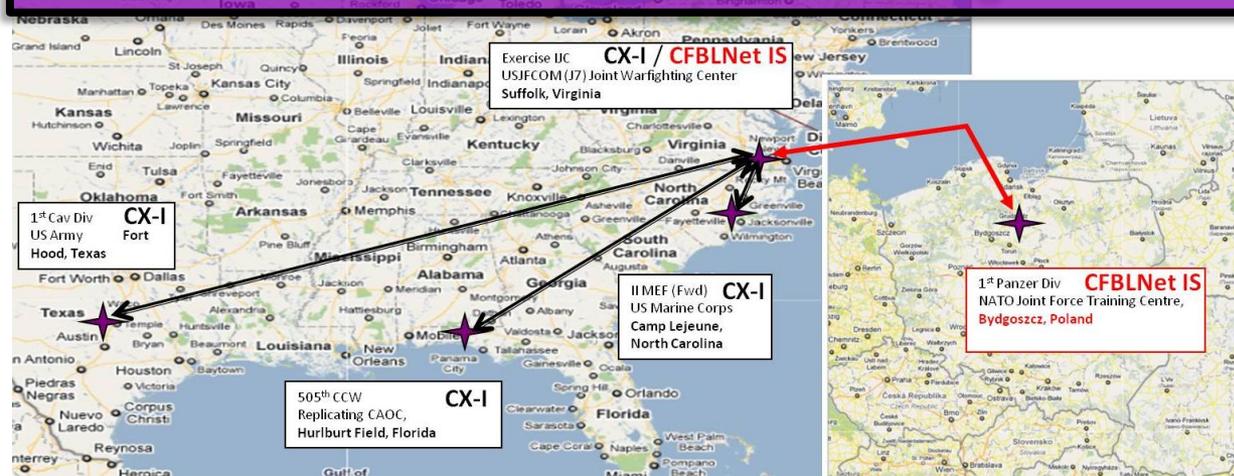
- Providing Worldwide Application Delivery Services (Fixed & Mobile)
- Facilitating Digital Training on any Platform, Anywhere, at Anytime

★ Capable, Reliable, and Trusted

- Providing a Solid Network Infrastructure that is Always On, Always Connected
- Maintaining Business/Mission Command Applications and Services in the Cloud

“The Effect” – Afghanistan Mission Network

Training Real-Time How We Will Fight



“This is the best game changer preparing us for deployment.”

-- MG James L. Huggins, Jr.
Commanding General
82d Airborne Division

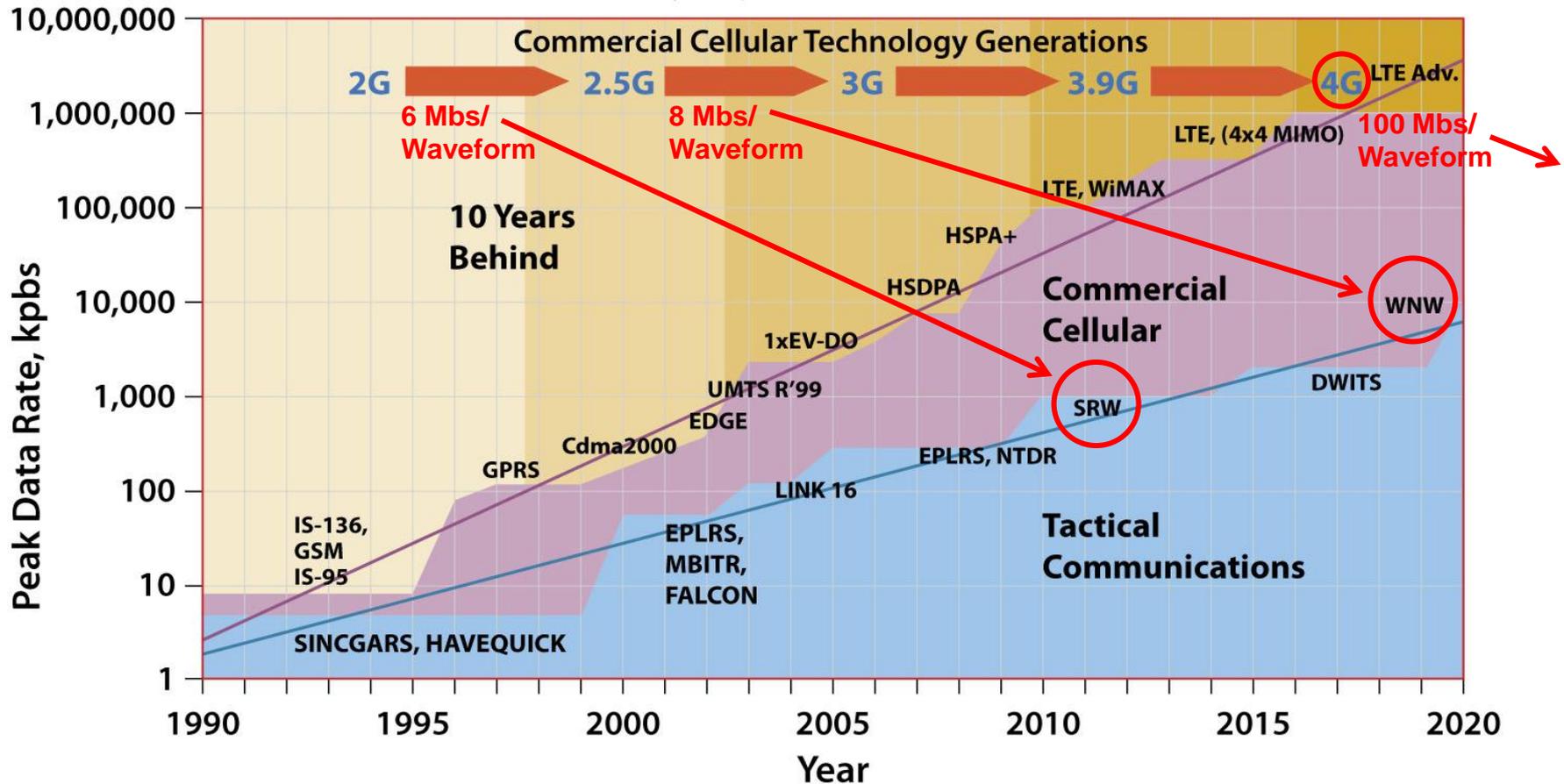
- ★ Key Element of AMN Concept – Connected at Home Station
- ★ Leveraged to Enhance and Improve Pre-Deployment Training
 - Forces are Fully Functional on Arrival and Have First Hand Awareness, Understanding
 - Able to Communicate, Collaborate and Share Information with all Forces Supporting the Mission at all Levels of C2
- ★ CENTRIXS-ISAF (CX-I)...The US Component of AMN - Over 40 Sites in CONUS Connected for Training and Testing
- ★ Combined Federated Battle Laboratories Network (CFBLNet)
- ★ Equally Applicable to Full Spectrum Operations



The Need for Change

**“We must fundamentally change how we acquire IT.
We can’t just close the technology gap -- we must eliminate it.”**
- LTG Susan S. Lawrence, Army CIO/G-6

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The Operational View

Computing Environment

Cloud

Market Place



- Services & Applications Built on Standards
- Hosted in a Market Place
- Capability Available to all Via the COE

National



XXX Corps

XX Div

X Bde

II Bn

Scalable



Back End

Network

Communication



SPACE

AERIAL



TERRESTRIAL

Transport

Sensors & Platforms

Connected via the Network, Extending the Network to the Warfighter at the Edge

End Users

Connected via the Network - Vehicle Acts as a Common Access Point for Warfighters



Front End



Network Modernization

- ★ Incremental Modernization Through Capability Sets
- ★ Establishing an Integrated Network Capabilities Baseline



★ Semi-Annual Network Integration

Evaluations Conducted by the Brigade Modernization Command

- ★ Providing Testing & Operational Feedback to Inform Investment Decisions
- ★ Facilitating a New Agile IT Acquisition Process





The Road to 2020

Fiscal Year	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	
A Single, Secure, Standards-Based Network	COE	COE Implementation (Tech Stds)		EoIP				?????	N E T W O R K 2 0 2 0	
	Army Data Center Consolidation Phase I				Army Data Center Consolidation Phase II ?					
	Infrastructure E2E Architecture			Thick Client/ Hosted Virtual Desktops						
	Security	Unified Communications (VoIP/VSoIP, chat, presence and awareness, SIP voice and video (VoIP/VSoIP +), desktop sharing, & replacement of TDM voice switches)					Context-Enriched Services			
	Compliance with IT Acquisition Policy									
Enable Global Collaboration	Enterprise Email					3-D Printing				
	Share Point					"Big data" and Extreme Information Processing and Management				
	Unified Comms and Collaboration/I3MP									
Access at the Point of Need	Classroom 2020	Wireless TOCs						Speech & Gesture Recognition		
		COTM	A4A (Digital Apps to the Soldiers)			Predictive & Social Analytics				
		Thin Client/Virtual Desktop Environment								
			Bandwidth Available				Cyber Resiliency			
Capable, Reliable, and Trusted	NetOps Tools (REM/Retina, Spectrum, SCCM, Arcsight)						Self Monitoring, Self Healing Network			
	Network Management (ESMS/Remedy)									
	HBSS	ITAM								
	Spectrum Allocation									
Capability Sets	11-12	13-14		15-16		17-18		19-20		



How Industry Can Help

We Need an Open and Responsive Environment for Dialog and Exchanges to Ensure we Deliver the Best Network Capabilities and Services

- ★ Do What You Do Best – INNOVATE, Develop and Apply the Network's Full Potential
- ★ Leverage Available & Emerging Technologies to Provide Secure Connectivity "Anytime and Anywhere"
- ★ Focus on "Open Systems" Instead of Proprietary Interface Designs or Approaches
- ★ Get to Know our COE/Technical Standards and Participate at FT Bliss – Let's Apply Your Technologies to Our Needs (Oct / Apr)
- ★ Share Technology Roadmap and Explore Cooperative R&D Agreements
- ★ Develop Network Services with Ability to Reconfigure Network Bandwidth Base on Data Packet Size
- ★ Provide Solutions for Data Management – Help us Capture, Manage, and Analyze Data Timely



Network of 2020 – Imagine It!

★ By 2020, We Will Have Experienced...

- A Rise of Optical Infrastructure,
- Gigabit – Capacity Wireless Infrastructure, and
- Self-Assembling Network Capabilities

... Allowing for Centrally Managed Deployment
of Computing Resources

- ★ Security Will be Pervasive and Built in to Every Touch Point
- ★ The Core Network is a Strategic Asset and Must Continue to Evolve From an Increased Capacity Perspective
- ★ We Won't Need as Many Boots on the Ground with the Future Network





THANK YOU!



QUESTIONS-THOUGHTS



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