

JMNO

JOINT MOBILE NETWORK OPERATIONS



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NETWORK OPERATIONS**

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UNCLASSIFIED

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Problem Statement



The lack of joint tactics, techniques, and procedures (TTP) limit the forces' ability to access information resources and network services when crossing network boundaries

Issue 1 – Network-to-network connectivity

What is the level of network interoperability achieved between different Services at the tactical level by implementing JMNO-developed mobile NetOps joint TTP?

Issue 2 – User cross-network support

To what extent do JMNO-developed mobile NetOps joint TTP enable a tactical user to access information resources and network services via a different Service's (host) network?



Vision



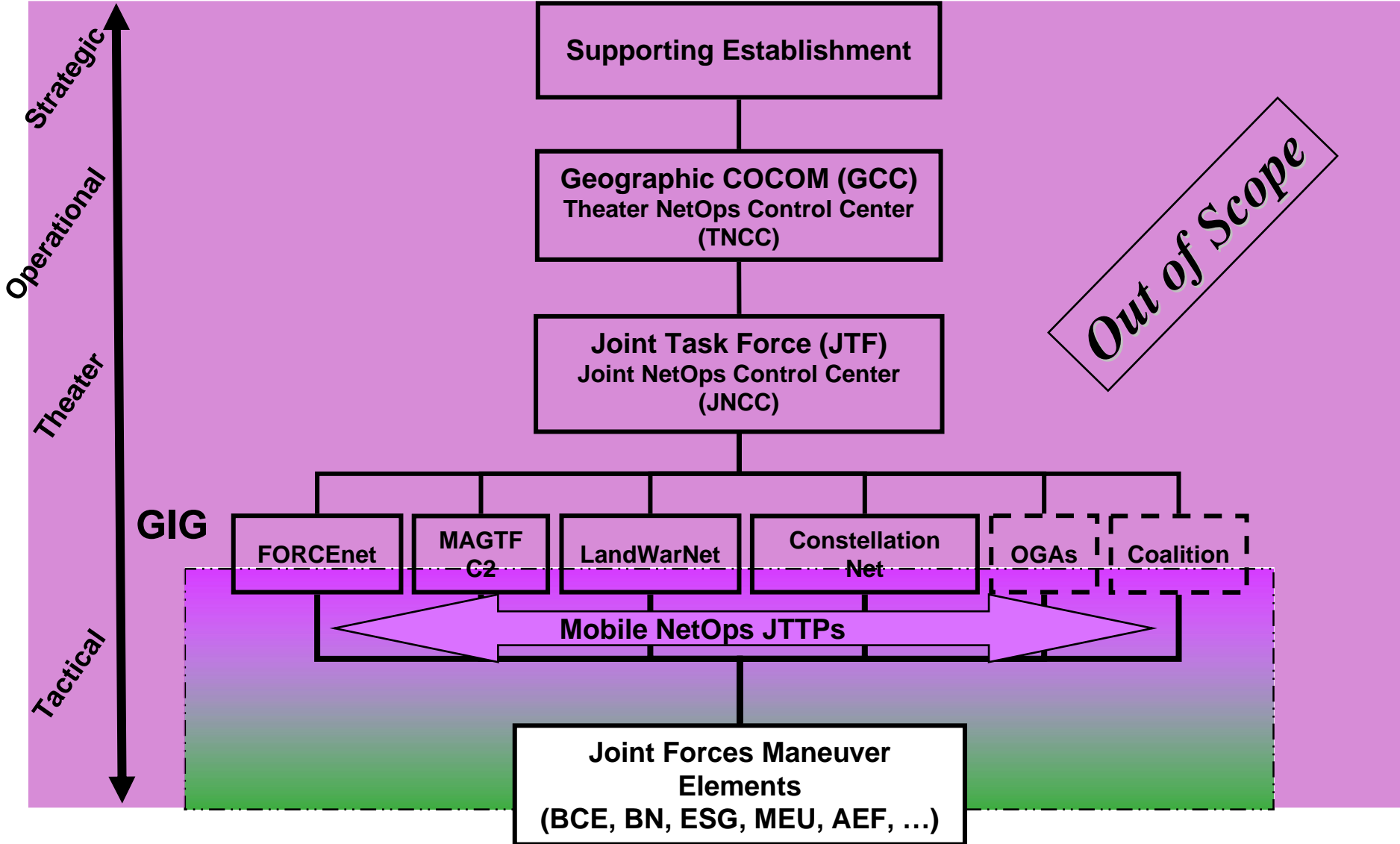
JMNO TTP at the tactical edge:

- Expedite the migration to net-centric operations in the tactical environment
- Improve situational awareness through network connectivity
- Permit command-centric operations on the move
- Provide an expedient network operations solution for high-tempo maneuver warfare

“This is MOTHERHOOD. This is important.”

LtGen R. Shea, JCS, J-6

Scope & Perspective



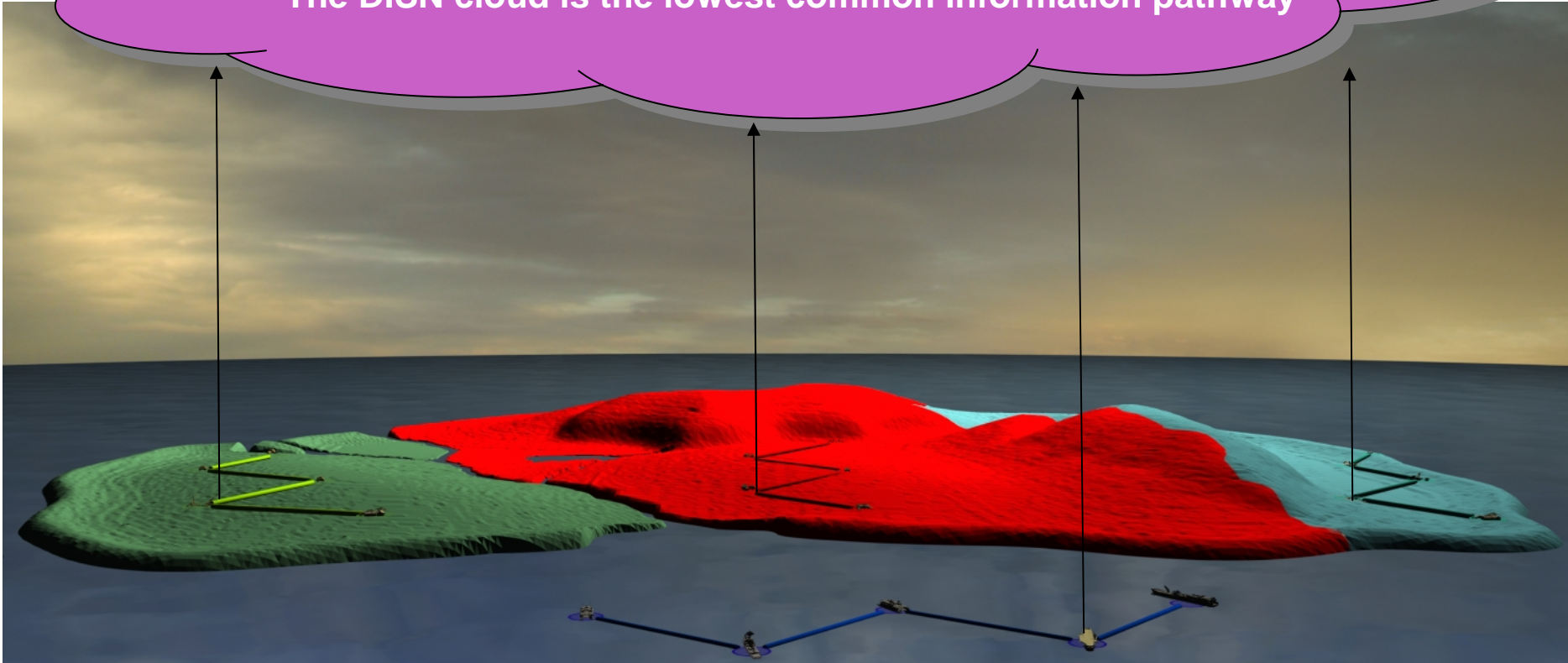


“As-Is”



DISN

The DISN cloud is the lowest common information pathway



Each service has acquired communications equipment designed to communicate within the service. Warfare has evolved faster than the acquisition system. Operating forces need the capability to communicate across service boundaries and to “roam” across the battlefield. Deployed communicators are struggling to meet the need through arduous, ad-hoc coordination.

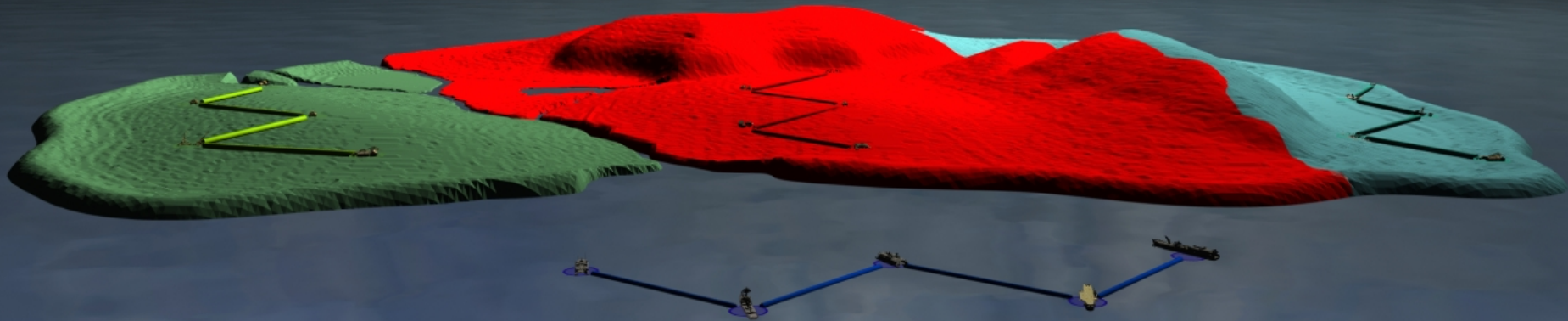


“To-Be”



DISN

The “Joint Mobile Control Plane”



If we provide the capability for the JTF to coordinate joint network operations and management via a Joint Mobile Control Plane (JMCP), then we can implement the “Purple Zone” at the lower tactical echelons. The JTF J6 needs the capability to perform dynamic communications network management, i.e. “Fight the Network”. The JMCP can be established in the “Annex K”.

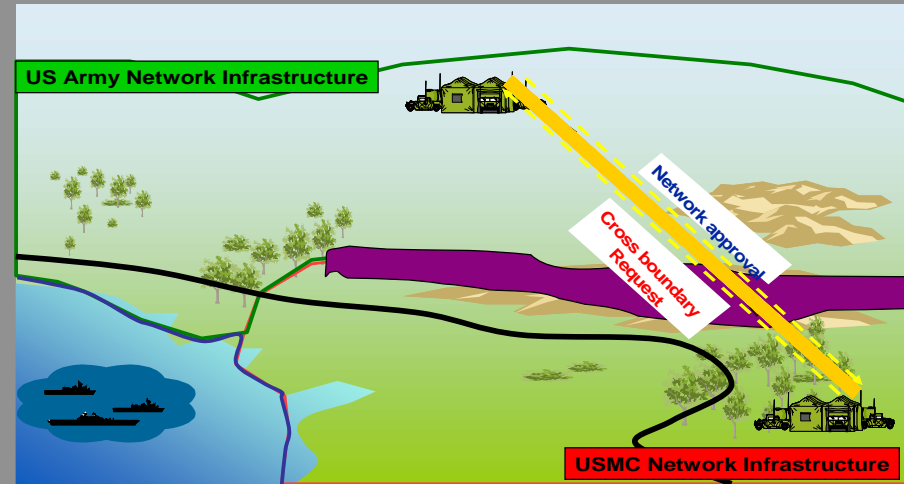
Must Do:

In order to obtain network services three things must occur :

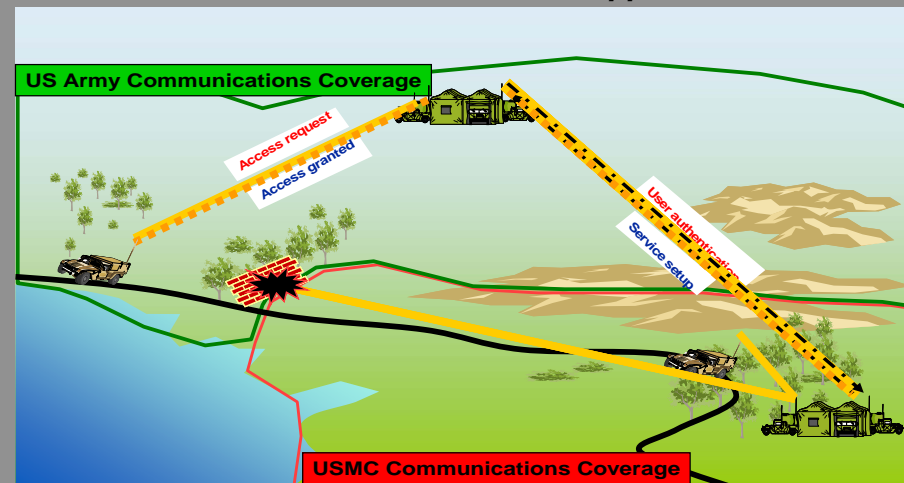
1. **Connection** - physical media
2. **Access** - command decision
3. **Authorization** - verification of Service requirement and identity

These three requirements encompass the two JMNO issues

Issue 1 Characterization Network-to-Network Connectivity



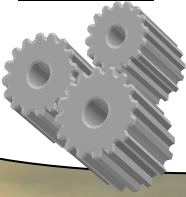
Issue 2 Characterization User Cross-Network Support



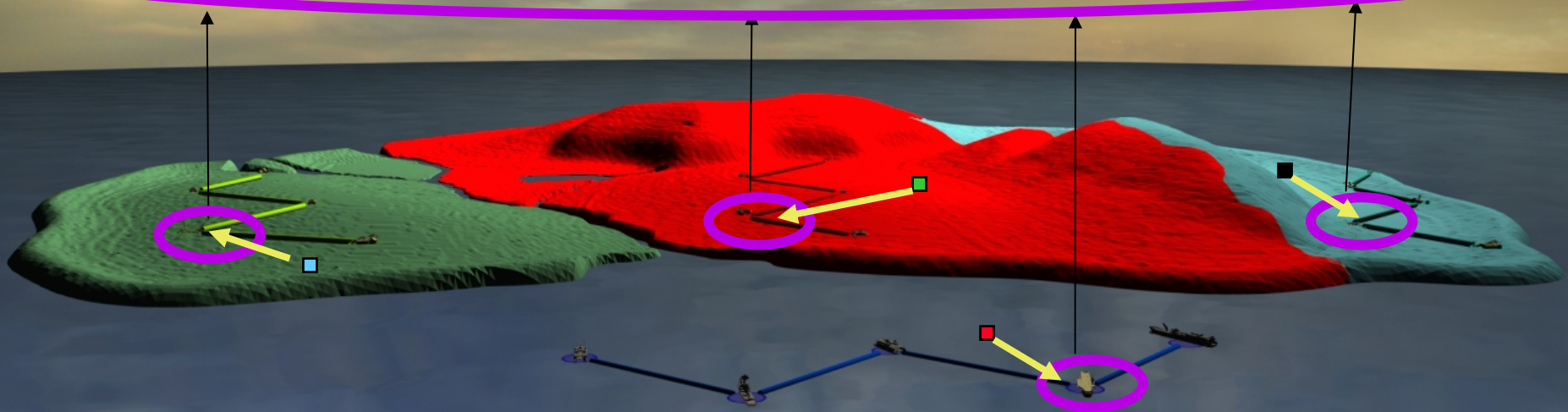
“To-Be”



JTF J6: Can perform dynamic network operations and management by designating which nodes within the Service components become “**Multiservice Distribution Nodes (MSDN)**” and shifting network resources accordingly



The “Joint Mobile Control Plane”

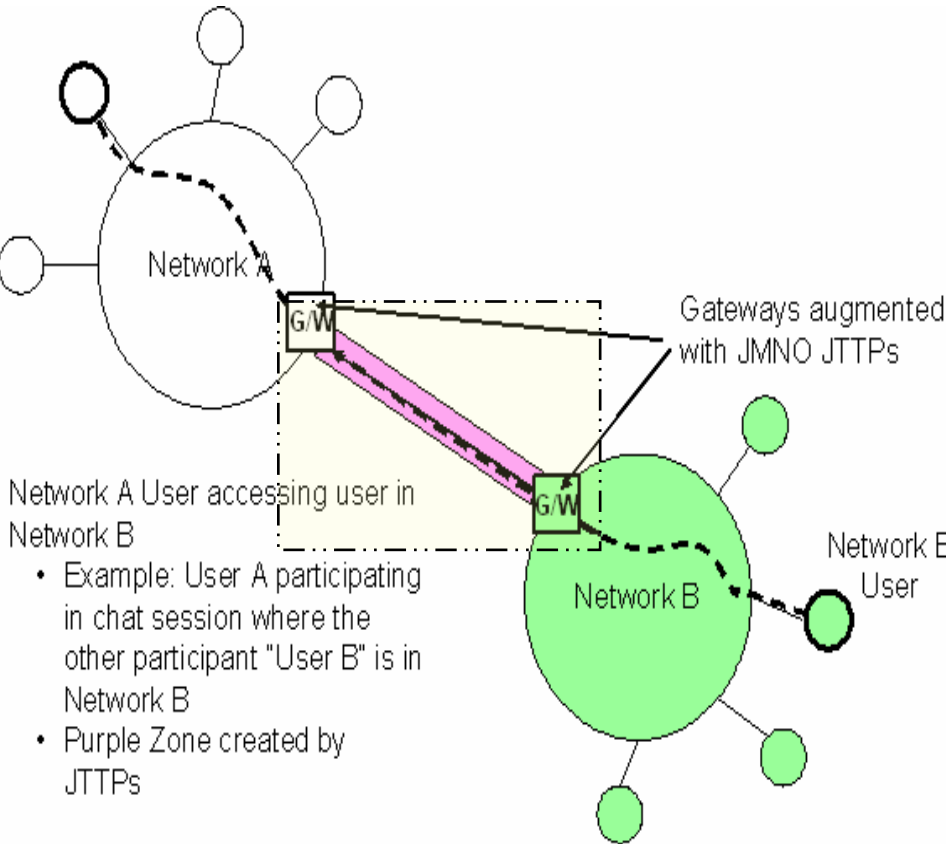


The JTF J6 is in the best position to coordinate the shifting of network resources as forces maneuver
The MSDN provide the “Purple Zone” to the operating maneuver forces
The MSDN performs the joint TTP providing: 1)Connection 2)Access 3)Authorization

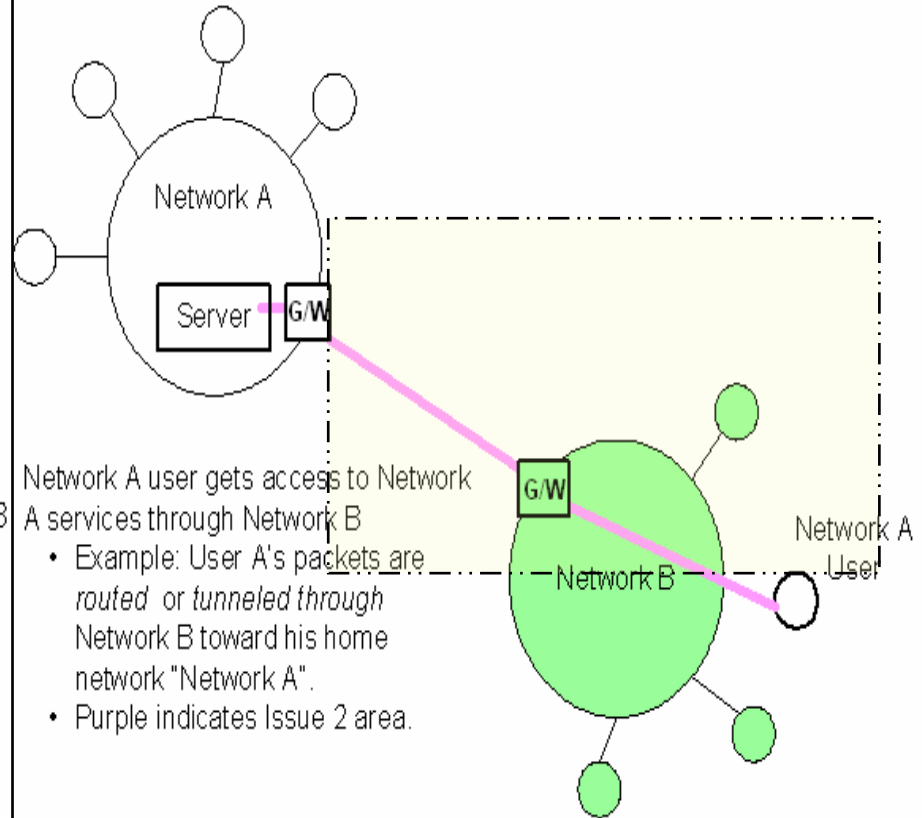
JMNO Issue Description



Issue 1 Focus



Issue 2 Focus



G/W = Multi-Service distribution node



Benefits to the Warfighter



- **Network access during maneuver**
 - Provides tactical user **expanded network access** during maneuver
 - Increases **maneuver flexibility** when crossing Service boundaries
 - **Reduces network set-up time** and complexity during maneuver
- **Joint TTP scalability**
 - Significantly **reduces joint network negotiation time**
 - Maximizes tactical implementation **regardless of hardware**
 - **Extensible** to coalition and OGA networks through coalition observation and oversight
- **Network connectivity between Service tactical networks**
 - Enables **greater joint situational awareness**
 - Improves synchronization of command at the tactical level
 - Expedites information access and **collaboration between Services**

Extends power of the network down to tactical edge



Summary



**JMNO will develop and test
a set of TTP which will
provide the solutions the
tactical user needs to save
time, resources, and lives**

JMNO is needed NOW!



JMNO Points of Contact



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