



Coalition Interoperability: a Modeled Approach

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Agenda

- History
- Model
- Systems
- Approach
- Results
- Way Ahead



Historical Context

- Acting ASD and USCENTCOM J6
- ISAF and CJTF-76 in fall 2004
- NC3 Board
- ACT
- Develop Proposal
- Use C2IEDM
- Demo in summer 2005



Historical Context

- Proposal – March 2005
- Spiral, leverage from June 2005
- Funding – August 2005
- Testing – fall –winter 2005/2006
- Demonstrations – Greding, Stavanger
- Go Live – July 2006
- Demonstration – Afghanistan – November 2006



FULL MEMBERS

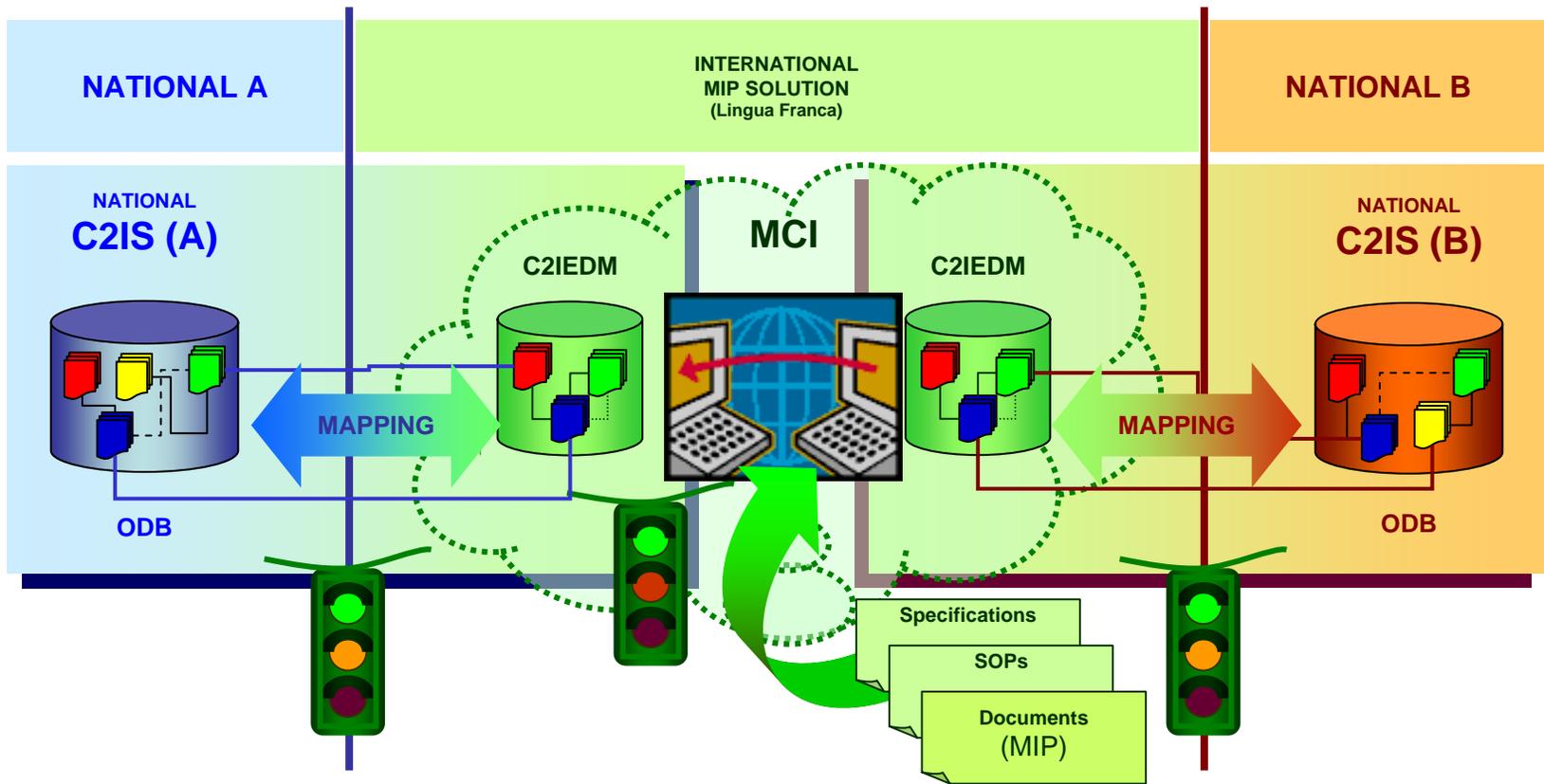
CAN		TacC2IS
DNK		DACCIS
FRA		SICF, SIR
DEU		HEROS-2/1
ITA		SIACCON
NLD		ISIS
NOR		NORTaC/NORCCIS
ESP		SIMACET
TUR		TACCIS
GBR		ATacCS/ComBAT
USA		MCS

ASSOCIATE MEMBERS

AUS		JCCS, BCSS	LTU		TAVVIS
AUT		PHOENIX	POL		SZAFRAN
BEL		ISIS	PRT		SICCE
BUL		FICIS	ROU		SI AAB
CZE		GF-TCCS	SVN		SIT AWARE
FIN		FINACCIS	SWE		ISMARK, SLB
GRC		HARCCIS	ACT		BiSC - AIS
HUN		HAVIR	JFC		



Operational Concept





Systems

- Land Command and Control Information Services (LC2IS) Prototype – developed in-house at NC3A to inform the NSIP process
- Laptop common hardware



Systems

- Situational Awareness Data Interchange Data Exchange Server
- Mediation service for legacy systems to interface with C2IEDM-based systems
- Sun, Unix based Global Command and Control System
- MIP injector

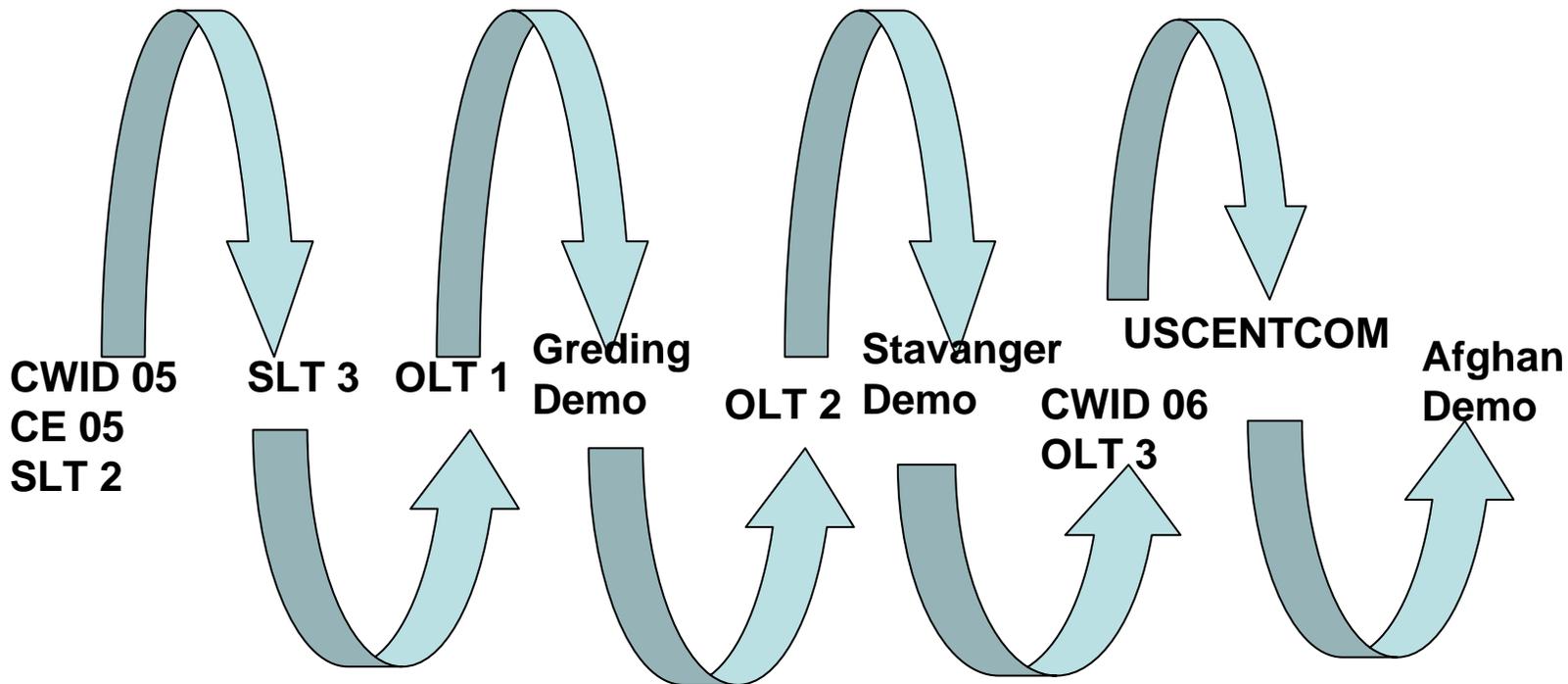


Systems

- Maneuver Control System (MCS) v 6.4
- Army Battle Command System (ABCS)
- Program Manager Battle Command
- Corps thru Battalion COP, planning, OPORD & OPLAN development

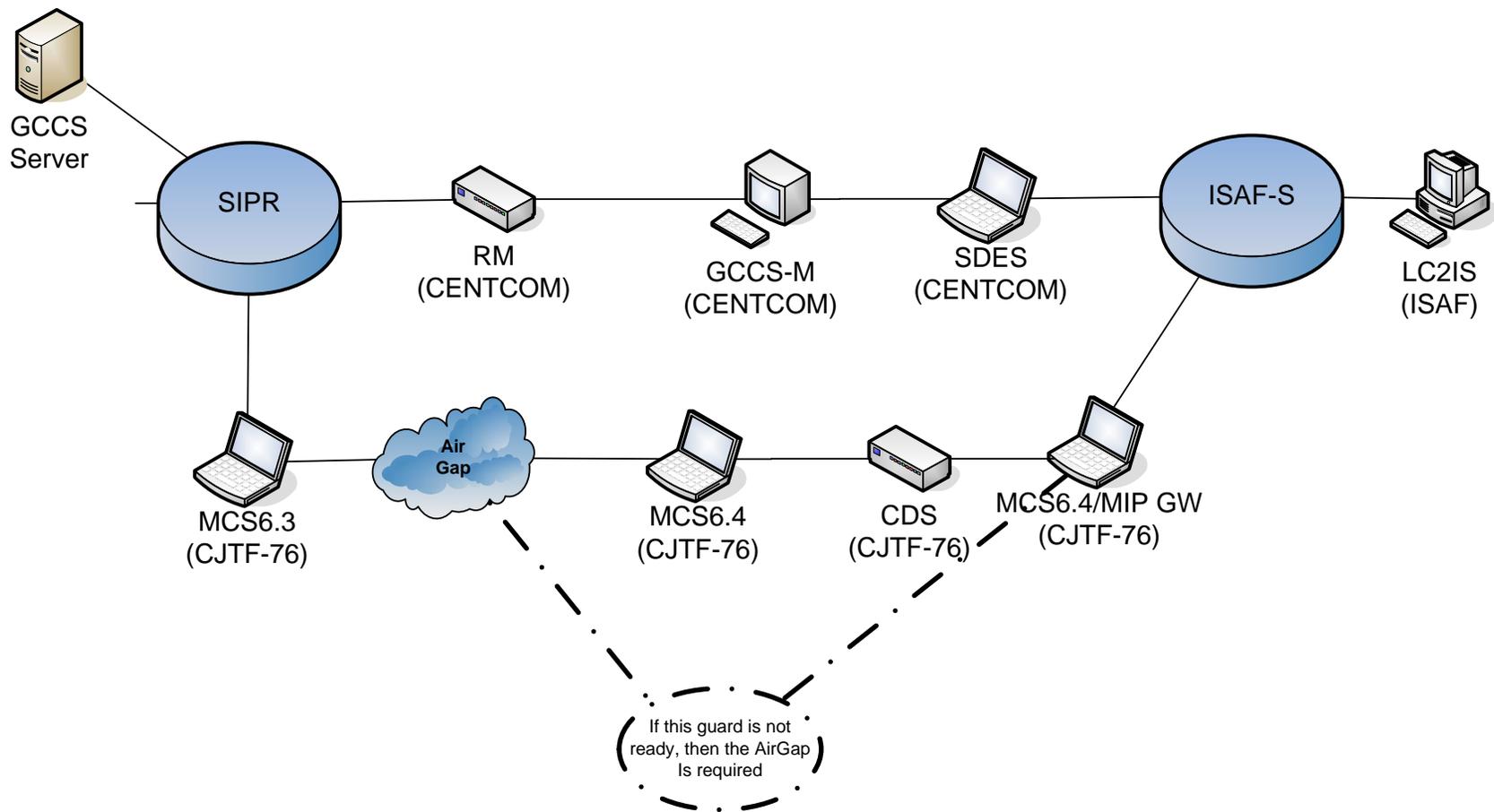


Spiral Development Approach





Architecture





Results

- Land Command and Control Information Service (LC2IS) – NATO Prototype passed Operational Assessments, OLT and SLT
- Performed flawlessly at Greding, Stavanger
- MCS V6.4 confirmed interoperability
- Situation Awareness Data Interchange Data Exchange Server is a SOA-based semantic mediation service that confirmed its ability to connect legacy systems to C2IEDM based systems.



Results

- LC2IS Prototype readied for demonstration and experimentation on time and within budget
- SADI/SDES functionality on time and within budget
- MCS v 6.4 confirmed functionality
- ACT an essential actor for transformation in NATO



Results

- Glide path to demonstrate capabilities in Afghanistan
- Support further experimentation – continue to nudge operational community to experiment, demo, utilize, expand on success
- MIP in ascendancy – poised to reach full potential of the model and specifications



Way Ahead

- Demo system in Theater
- “Seed Corn” for future experimentation
 - National implementations of the 25 members
 - Joint Warfare Centre
 - NATO Response Force
- Continue to nudge and leverage full potential of systems
- Feed requirements to industry
- First rate NATO System



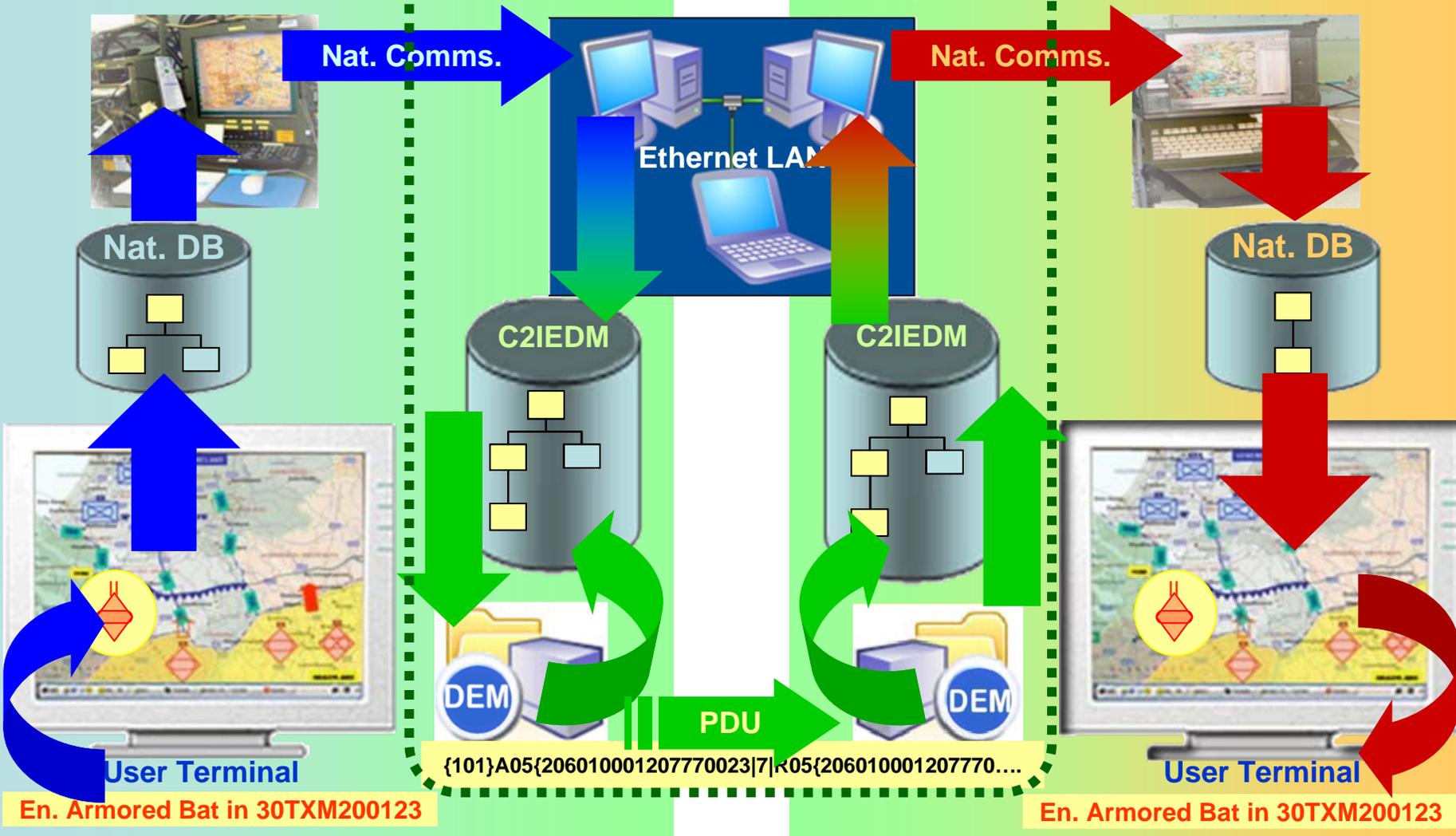
- Other Points
- Backups

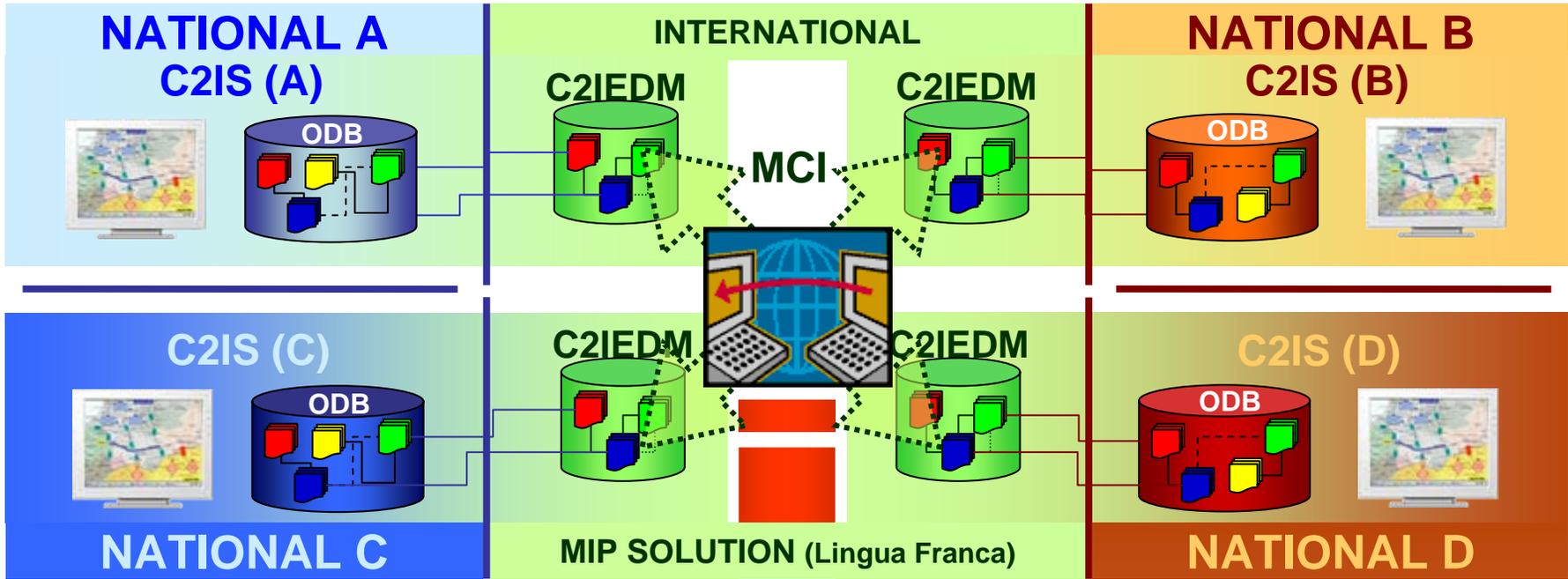


National C2IS

MIP Common Interface

National C2IS





MIP SOLUTION (Lingua Franca)
UNIQUE COMMON PICTURE



COMMON UNDERSTANDING



Concept End-State

Effective C2 for international operations

Shared Tactical Picture

Automatic
Exchange Mechanism

Common
Data
Model



Common
Data
Model

National
Implementation
(Nation A)

National
Implementation
(Nation B)

COLLABORATION

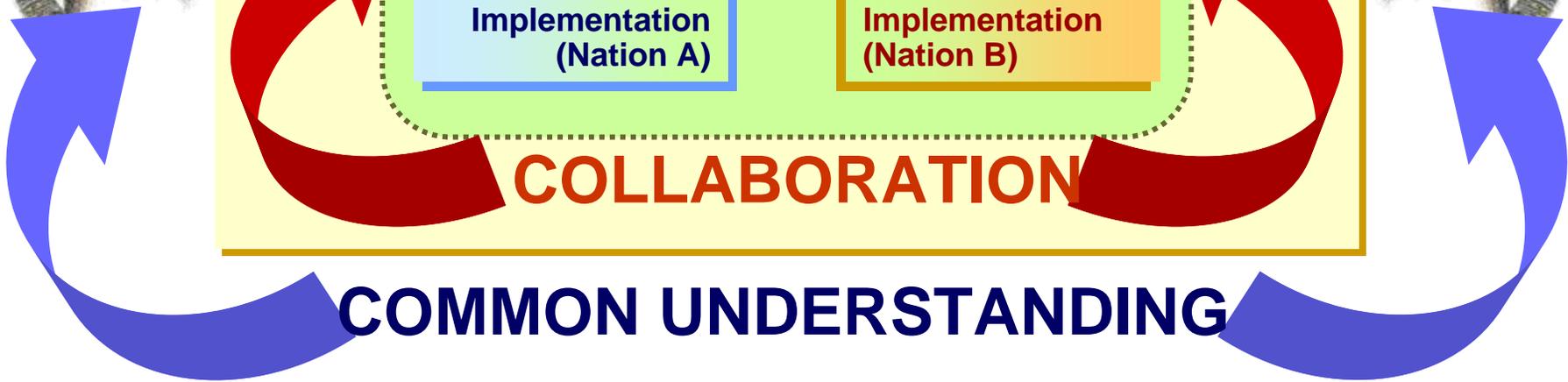
COMMON UNDERSTANDING

Commander
(Nation A)

Staff
Officers
(Nation A)

Staff
Officers
(Nation B)

Commander
(Nation B)





Concept MCI (co-located)

