

## Annex F – IITSEC 10 NETN FEDERATION AGREEMENTS D1

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# IITSEC 10 NETN Federation Agreements D1



## Background

This Federation Agreements Document (FAD) support the development and execution of a federated distributed simulation based on NATO Education and Training Network (NETN) Federation Architecture and FOM Design (FAFD) recommendations made by the NATO RTO Task Group MSG-068. The federation is intended to support a multi-national distributed advanced technical demonstration of MSG-068 results at the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) held in Orlando Florida, USA in December 2010.

## Strategic Theme

Presenting and demonstrating M&S support for NATO Future Joint Distributed Training and Exercises.

## Scope

Demonstrate the main results of MSG-068 task group.

## Objectives

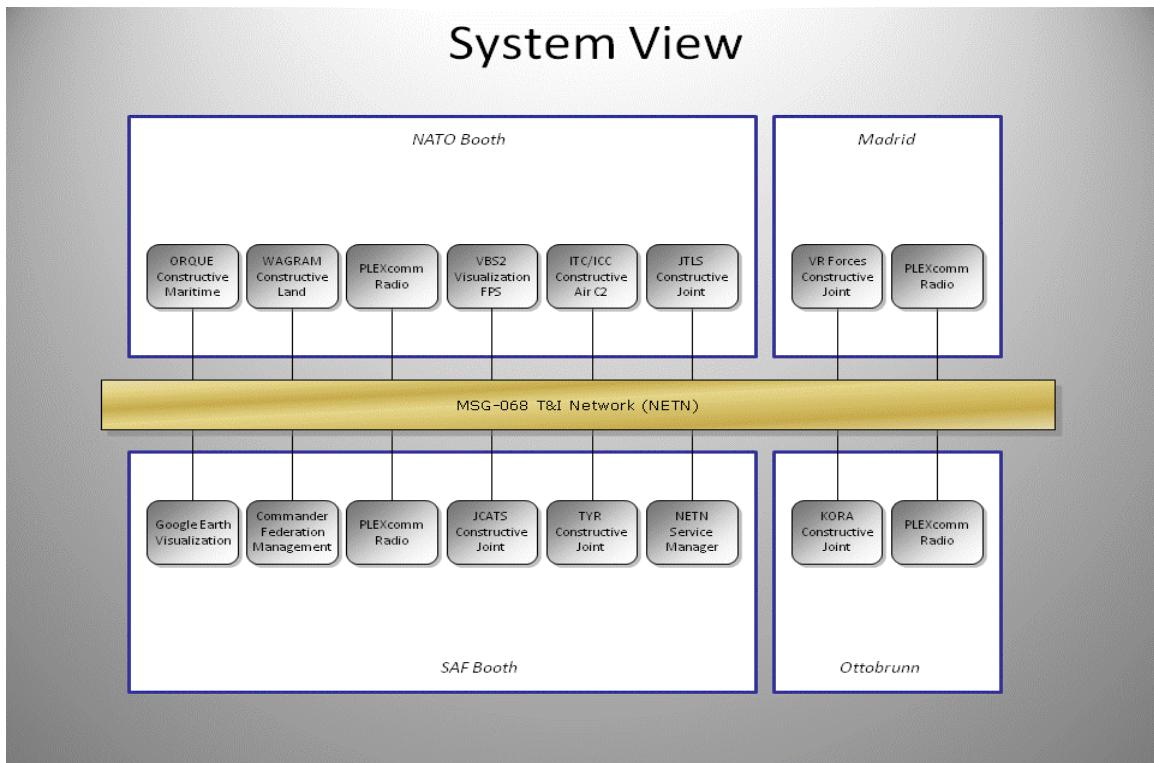
- Present MSG-068 objectives, activities, main results and recommendations
- Present NETN Federation Architecture and FOM Design
- Present NETN Infrastructure Recommendations
- Demonstrate (technical demo) a distributed NETN federation with NATO and partner national systems

## Systems

Name	Description	Purpose
AV System	Audio and Video	Audio and Video Control
Commander	Federation management	Federation Monitoring and Control
Google Earth	Scenario Viewer	Situation awareness picture: SITFOR, Police and civilian. EXCON / AAR Online
ICC	Constructive Air Simulation and ICC stimulation	Recognized Air Picture (RAP)
JCATS	Constructive Joint Simulation	Joint Land Simulation
JTLS	Constructive Joint Simulation	Joint Simulation

KORA	Constructive Joint Simulation	Joint Simulation
ORQUE	Constructive Maritime Simulation	Maritime Simulation and Air Refueling
PLEXcomm	Radio Simulation	Tactical and Admin Radio
Simulation Infrastructure	Distributed Simulation Runtime Infrastructure	Simulation Interoperability
TYR	Aggregate Level Constructive Simulation	Joint Simulation. EXCON / AAR Online
VBS2	First Person Virtual Simulation	Lower tactical and UAV simulation. Virtual situation awareness: Land, Air och Media
VR-Forces	Constructive Simulation	Joint Simulation
WAGRAM	Constructive Joint Simulation	Joint Simulation

## System Overview



## Other Supporting Software

Tools to support test, integration and execution of the federation.

Full Name	Version	Description
Pitch Actors	MSG-068	CGF
Pitch Booster	1.2	Private Simulation Network Overlay
Pitch NETN Service Manager	MSG-068	Test tool for NETN Consumer-Provider Patterns
Pitch Recorder	1.5	Simulation Traffic Record, Analysis and Playback
Pitch Visual OMT 1516	2.0	HLA Object Model Development Tool
Pitch pRTI 1516	4.2	HLA RTI

The following tools are provided by SWE to all participants to support development, test, integration and execution of the federation.

- Pitch pRTI
- Pitch Booster
- Pitch Visual OMT
- Pitch Recorder
- Pitch Commander

Instructions for obtaining the software is provided by FMV

## Scenario

Scenarios will be a subset of the MSG-068 Experimentation Vignettes.

### Vignettes for main presentation (not all every presentation)

Incident	Systems	Demo
UAV Recce	VBS2-UK, JCATS	RPR and NETN classes
Cruise Missile	Orque, JCATS, VBS2-UK	RPR, and NETN object classes, Detonation Effects
Airstrike	JCATS, JPECT, VBS2-UK, VBS2-NLD	RPR, and NETN object classes, Detonation Effects
Ground Strike with CCA	WAGRAM, JCATS, VR-Forces, VBS2-UK, TYR	RPR and NETN classes, direct and indirect fire
Marine Blocking Position	JCATS, VBS2-UK	RPR and NETN classes, indirect/direct fire and detonation

### Additional vignettes prepared for demo between scheduled events

Incident	Systems	Demo
Sealift	Orque, WAGRAM, VR-Forces, JTLS	Convoy Logistics Pattern
Air Refuel	ORQUE , JTLS, TYR	Supply Logistics pattern
Hostage Evac	KORA, TYR	Convoy logistics pattern
MEDEVAC	KORA, VR-Forces	Convoy logistics pattern

## Federation

### Simulation Infrastructure

The federation Runtime Infrastructure is based on the IEEE 1516-2010 (HLA Evolved) standard service API for distributed simulation. Systems using older HLA standards can connect using provided adapters.

Simulation Interface	Infrastructure
HLA IEEE 1516-2010	pRTI 1516 v4.2
HLA IEEE 1516-2000	pRTI 1516 v4.2 and 1516-2000 Adapter
HLA 1.3	pRTI 1516 v4.2 and HLA 1.3 Adapter

### RTI and Federation Settings

Federation Name	NETN
CRC Name	IITSEC_CRC

### NETN Federates

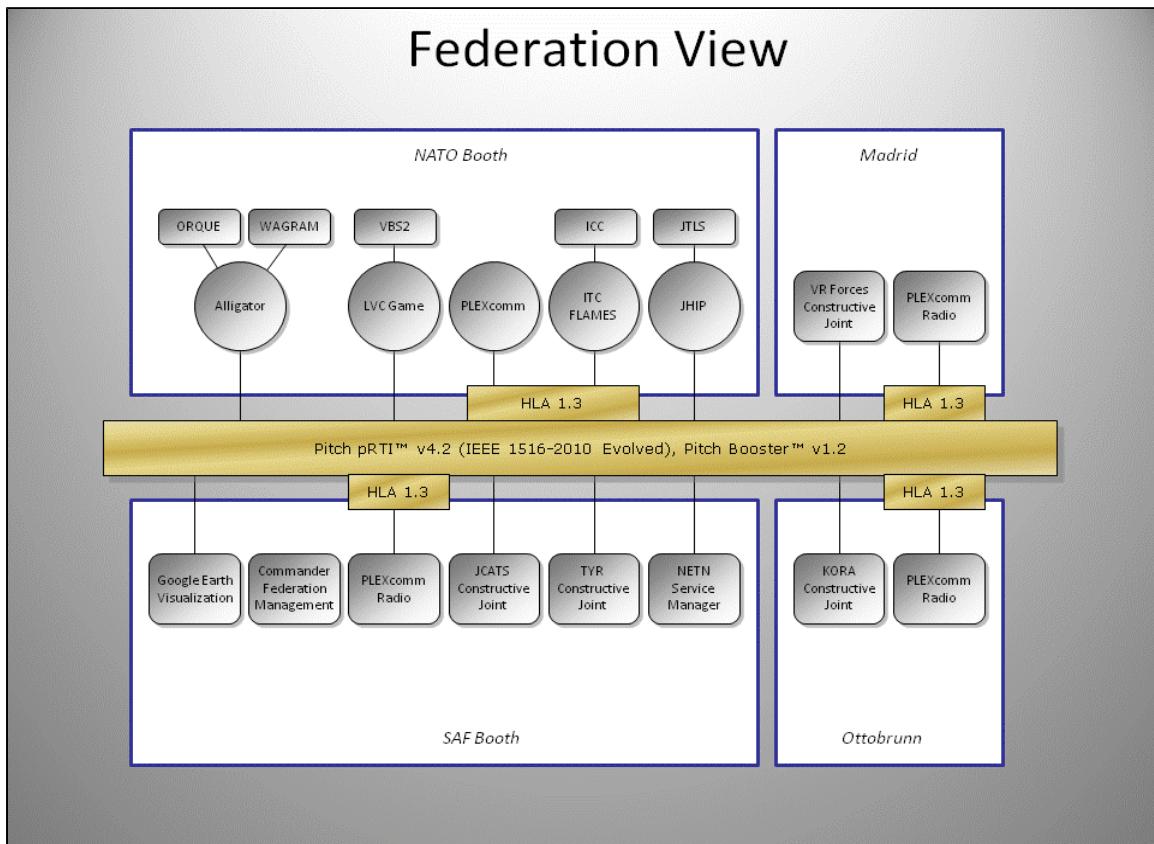
Full Name	Federate Name	Federate Type	HLA Interface	Federate Instances
ALLIGATOR	ORQUE&WAGRAM	ALLIGATOR	IEEE 1516-2010	1
Pitch Commander Agent	Commander	Commander Agent	IEEE 1516-2010	1
ITC Flames	ITC Flames	ITC Flames	HLA 1.3	1
JCATS Server	JCATS	JLVC	IEEE 1516-2010	1
JTLS Server	JTLS	JTLS	IEEE 1516-2010	1

KORA	KORA	KORA	IEEE 1516-2010	1
LVC Game	VBS2	LVC Game	IEEE 1516-2010	1
PLEXcomm	PLEXcomm	PLEXcomm	HLA 1.3	10
Pitch GE Adapter	Google Earth	GE Adapter	IEEE 1516-2010	1
CATS TYR Client	TYR Client	TYR Client	IEEE 1516-2010	1
CATS TYR Server	TYR Server	TYR Server	IEEE 1516-2010	1
VR-Forces	VR-Forces	VR-Forces	IEEE 1516-2010	1

For test and integration the following federates will also join the federation.

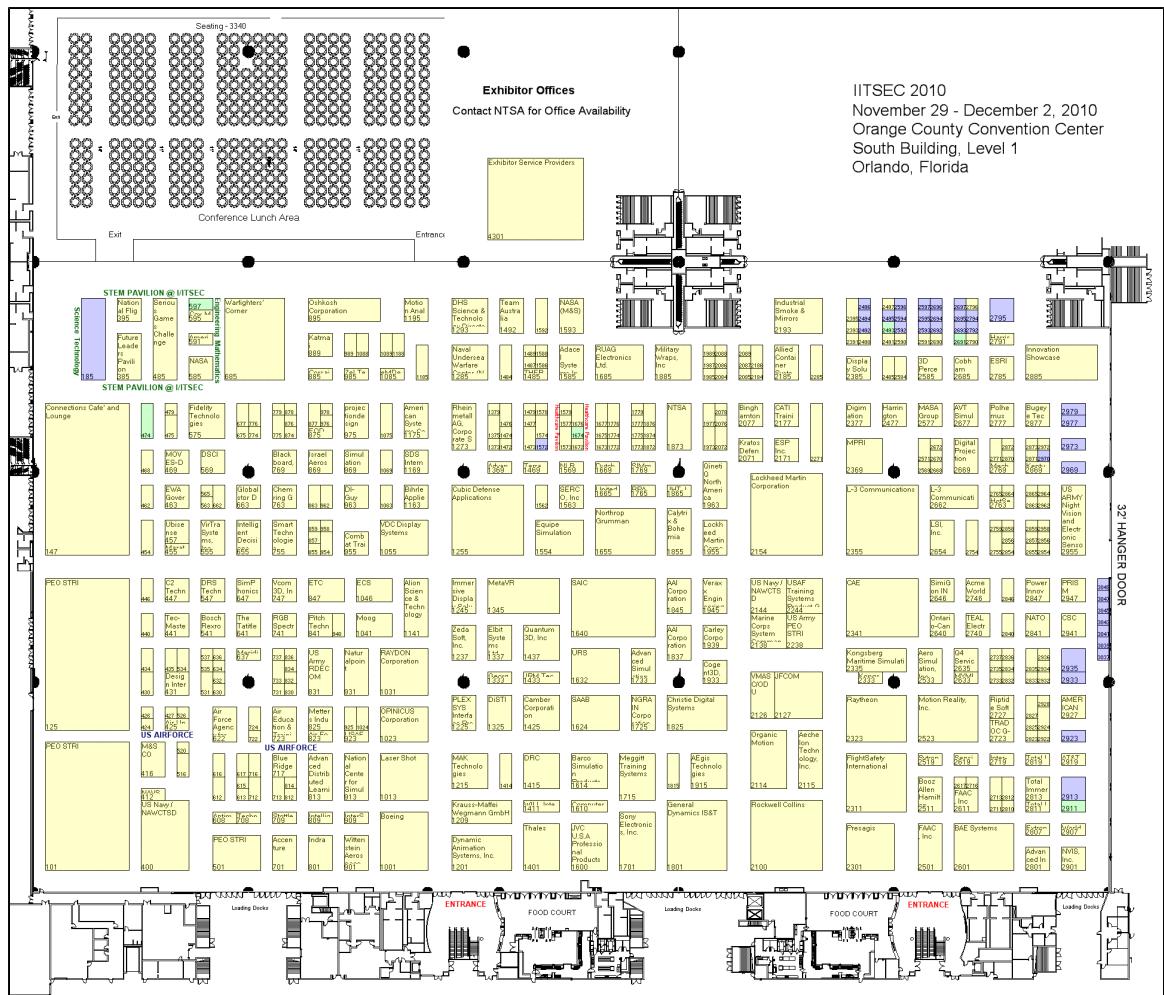
Full Name	Federate Name	Federate Type	HLA Interface	Federate Instances
Pitch Actors	Actors	Actors	IEEE 1516-2010	1
Pitch NETN Service Manager	Service Manager	NETN Service Manager	IEEE 1516-2010	1
Pitch Recorder	Pitch Recorder	Recorder	IEEE 1516-2010	1

## Lollipop

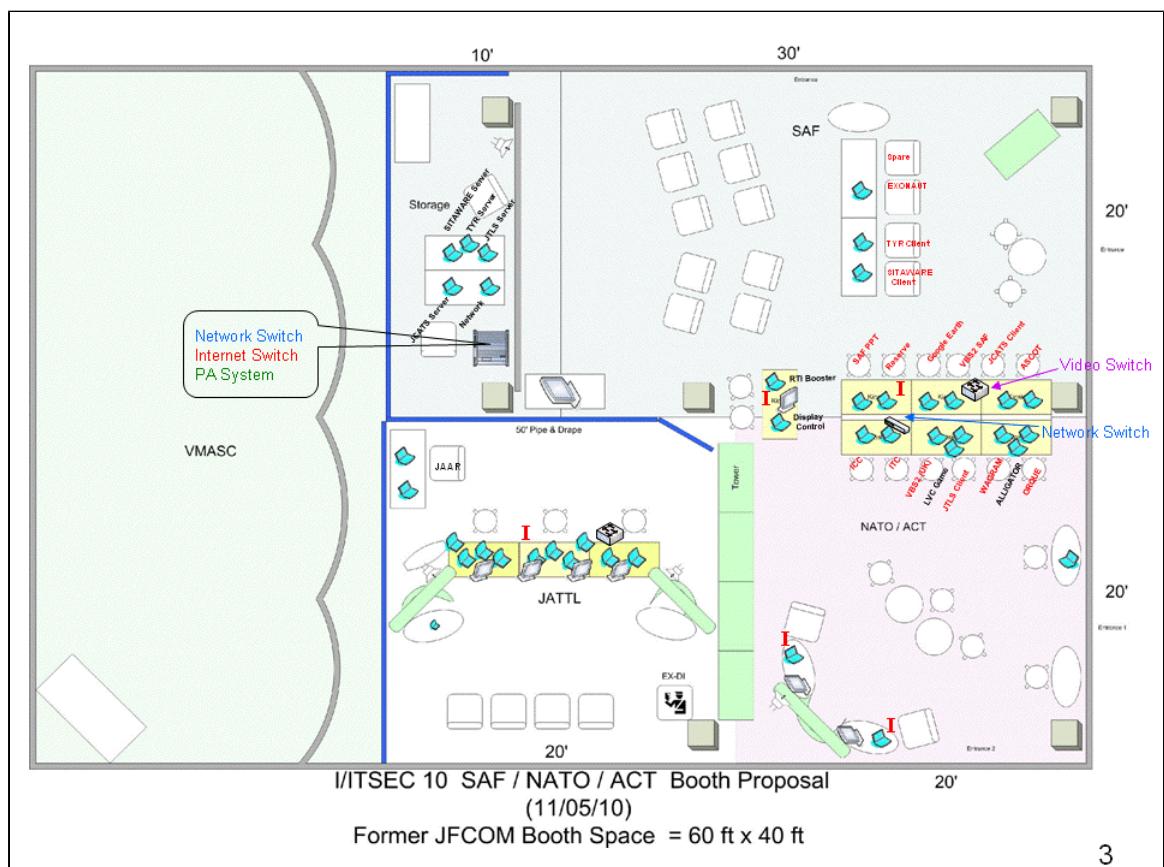


## Booth Layout

### Show Floorplan



## Detailed Booth Layout



## Network

Name	IP
Display Control Laptop	192.168.10.07
Google Earth Laptop	192.168.10.11
RTI and Booster Laptop	192.168.10.12 + Public IP
TYR Server Laptop	192.168.10.13
TYR Client Laptop	192.168.10.14
JCATS Server Laptop	192.168.10.15
JCATS Client Laptop	192.168.10.16
ITC Laptop	192.168.10.17
ICC Laptop	192.168.10.18
ORQUE Laptop	192.168.10.19
WAGRAM Laptop	192.168.10.20
ALLIGATOR Laptop	192.168.10.21
JTLS Client Laptop	192.168.10.22
JTLS Server Laptop	192.168.10.23
VBS2 UK Laptop	192.168.10.24
LVC Game Laptop	192.168.10.25

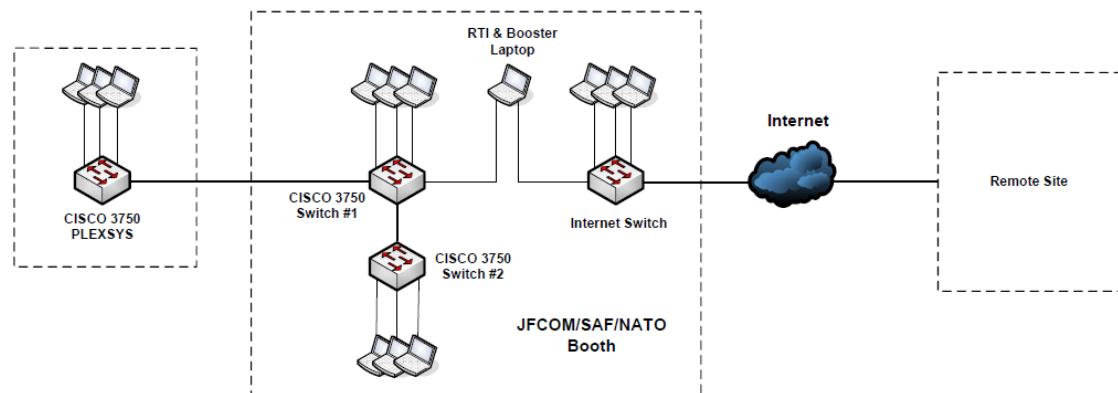
Booster "IITSEC" running on 192.168.10.12

192.168.10.3-10 Reserved for SAF Demonstration

## Remote Sites and Systems

Site	Booster	Systems
IABG, Ottobrunn, DEU	84.11.17.135:8686	KORA
MoD, Madrid, ESP	88.30.61.95:8686	VR-Forces
JFTC, Bydgoszcz, POL	81.15.244.88:8686	
Artifex, Budapest, HUN	81.183.210.28:8686	
TNO, The Hague, NLD	195.169.128.61:8686	
NC3A, The Hague, NLD	195.169.118.98:8686	
FMV, Stockholm, SWE	192.165.65.207:8686	
Pitch, Linkoping, SWE	80.252.168.222:8686	
DGA, Paris, FRA	194.254.107.30:8687	
R&A, Monterey, CA	216.228.3.210:8686	
PLEXSYS, Camas, WA	173.164.66.89:8688	
Calytrix, Perth, AUS	116.212.205.222:8686	
IITSEC10, Orlando, FL	TBD	TYR, JCATS, VBS2, JTLS, ORQUE, WAGRAM, ITC/ICC

**I/ITSEC2010**  
**Network Diagram**  
**10/18/2010**



## Audio and Video

### Video

- 16x16 Video Switch Provided by JFCOM

Name	Video Switch Input #	Video Output #
JCATS Client Laptop	2	
Google Earth Laptop	7	
TYR Client Laptop	8	
ICC Laptop	9	
ITC Laptop	10	
VBS2 UK Laptop	12	
JTLS Client Laptop	13	
WAGRAM Laptop	14	
ORQUE Laptop	16	
External Monitor NATO Center		1
External Monitor NATO Left		2
External Monitor NATO Right		3
External Monitor FedExCtrl		5
Display Control Laptop		
16x16 Video Switch		

Input 10-16 reserved for NATO MSG-068 Demonstration Systems.

Output 10-16 reserved for NATO MSG-068 Demonstration Systems

## Audio

- PA System provided by JFCOM

⚠️ PLEXcomm audio out ⚠️ External Speakers

## Operators

### System Operators and Technical POC

Name	Operator	Technical POC
AV System	Per-Philip Sollin	Jim Janele
Commander	Björn Löfstrand	Per-Philip Sollin
Google Earth	Björn Löfstrand	Björn Löfstrand
ICC	Clive Wood	Clive Wood
JCATS	Thierry Grom	Thierry Grom
JTLS		
KORA		Michael Wolf-Bolle
ORQUE		
PLEXcomm	All Operators	Jamie Boulet
Simulation Infrastructure		Per-Philip Sollin
TYR	Max Karlström	Max Karlström
VBS2	Caroline Pettitt-Morris	Caroline Pettitt-Morris
VR-Forces	Patricio Jimenez	Patricio Jimenez
WAGRAM		

## Appendix

### Appendix 1 - Systems

Name	Full Name	Version	Commercial POC	Technical POC	Operator	Description	Purpose
AV System	AV System		Jim Janele	Jim Janele	Per-Philip Sollin	Audio and Video	Audio and Video Control
Commander	Pitch Commander	2.2.0	Björn Löfstrand	Per-Philip Sollin	Björn Löfstrand	Federation management	Federation Monitoring and Control
Google Earth	Google Earth PRO	5.2.1.1588	Björn Löfstrand	Björn Löfstrand	Björn Löfstrand	Scenario Viewer	Situation awareness picture: SITFOR, Police and civilian. EXCON / AAR Online
ICC	ICC			Clive Wood	Clive Wood	Constructive Air Simulation and ICC stimulation	Recognized Air Picture (RAP)
JCATS	JCATS Server		Amy Grom	Thierry Grom	Thierry Grom	Constructive Joint Simulation	Joint Land Simulation
JTLS	JTLS Server					Constructive Joint Simulation	Joint Simulation
KORA	KORA		Karl-Heinz Neumann	Michael Wolf-Bolle		Constructive Joint Simulation	Joint Simulation

ORQUE	ORQUE		Jose Ruiz			Constructive Maritime Simulation	Maritime Simulation and Air Refueling
PLEXcomm	PLEXcomm	3.0		Jamie Boulet	All Operators	Radio Simulation	Tactical and Admin Radio
Simulation Infrastructure	Simulation Infrastructure		Björn Löfstrand	Per-Philip Sollin		Distributed Simulation Runtime Infrastructure	Simulation Interoperability
TYR	CATS TYR Server	3.2	Torsten Bernström	Max Karlström	Max Karlström	Aggregate Level Constructive Simulation	Joint Simulation. EXCON / AAR Online
VBS2	Virtual Battlespace 2		Caroline Pettitt-Morris	Caroline Pettitt-Morris	Caroline Pettitt-Morris	First Person Virtual Simulation	Lower tactical and UAV simulation. Virtual situation awareness: Land, Air och Media
VR-Forces	VR-Forces		Patricio Jimenez	Patricio Jimenez	Patricio Jimenez	Constructive Simulation	Joint Simulation
WAGRAM	WAGRAM		Jose Ruiz			Constructive Joint Simulation	Joint Simulation

## AV System

Name	AV System
Full Name	AV System
Commercial POC	Jim Janele
Technical POC	Jim Janele
Operator	Per-Philip Sollin
Description	Audio and Video
Purpose	Audio and Video Control

## AV Hardware

Name	Owner	Tech POC	Location
JTLS Client Laptop	JWC	Andy Brown	NATO Booth
ORQUE Laptop	DGA	Jose Ruiz	NATO Booth
External Monitor NATO Right	JFCOM	Jim Janele	NATO Booth
Display Control Laptop	Pitch	Per-Philip Sollin	SAF Booth
Google Earth Laptop	FMV	Björn Löfstrand	SAF Booth
ICC Laptop	NC3A	Clive Wood	NATO Booth
JCATS Client Laptop	JFCOM	Thierry Grom	SAF Booth
TYR Client Laptop	FMV	Max Karlström	SAF Booth
WAGRAM Laptop	DGA	Jose Ruiz	NATO Booth
ITC Laptop	NC3A	Clive Wood	NATO Booth
External Monitor NATO Center	JFCOM	Jim Janele	NATO Booth
External Monitor NATO Left	JFCOM	Jim Janele	NATO Booth
External Monitor FedExCtrl	JFCOM	Jim Janele	SAF Booth
VBS2 UK Laptop	DSTL	Caroline Pettitt-Morris	NATO Booth
16x16 Video Switch	JFCOM	Jim Janele	SAF Storage

## Software

Full Name	Version	Description
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## Commander

Name	Commander
Full Name	Pitch Commander
Version	2.2.0
Commercial POC	Björn Löfstrand
Technical POC	Per-Philip Sollin
Operator	Björn Löfstrand
Description	Federation management
Purpose	Federation Monitoring and Control

## Hardware

Name	Owner	Tech POC	Location
Google Earth Laptop	FMV	Björn Löfstrand	SAF Booth

## Software

Full Name	Version	Description
Pitch Commander	2.2.0	Federation management
Pitch Commander Agent	2.2.0	Agent for monitoring and control

## Google Earth

Name	Google Earth
Full Name	Google Earth PRO
Version	5.2.1.1588
Commercial POC	Björn Löfstrand
Technical POC	Björn Löfstrand
Operator	Björn Löfstrand
Description	Scenario Viewer
Purpose	Situation awareness picture: SITFOR, Police and civilian. EXCON / AAR Online

## Hardware

Name	Owner	Tech POC	Location
Google Earth Laptop	FMV	Björn Löfstrand	SAF Booth

## Software

Full Name	Version	Description
Google Earth PRO	5.2.1.1588	Scenario Viewer
Pitch GE Adapter	1.4	Google Earth Adapter for HLA

## ICC

<b>Name</b>	ICC
<b>Full Name</b>	ICC
<b>Version</b>	
<b>Description</b>	Constructive Air Simulation and ICC stimulation

## Federation

<b>Purpose</b>	Recognized Air Picture (RAP)
<b>Commercial POC</b>	
<b>Technical POC</b>	Clive Wood
<b>Operator</b>	Clive Wood

## Hardware

Name	Owner	Tech POC	Location
ICC Laptop	NC3A	Clive Wood	NATO Booth
ITC Laptop	NC3A	Clive Wood	NATO Booth

## Software

Full Name	Version	Description
ICC		Constructive Air Simulation and ICC stimulation
ITC Flames		Constructive Air Simulation and ICC stimulation

## Integration Support

<b>Name</b>	Integration Support
<b>Full Name</b>	Integration Support
<b>Version</b>	
<b>Commercial POC</b>	
<b>Technical POC</b>	Lennart Olsson
<b>Operator</b>	
<b>Description</b>	Supporting tools for test and integration
<b>Purpose</b>	Integration Support

## Hardware

Name	Owner	Tech POC	Location
RTI and Booster Laptop	FMV	Lennart Olsson	SAF Booth

## Software

Full Name	Version	Description
Pitch Actors	MSG-068	CGF
Pitch NETN Service Manager	MSG-068	Test tool for NETN Consumer-Provider Patterns
Pitch Recorder	1.5	Simulation Traffic Record, Analysis and Playback
Pitch Visual OMT 1516	2.0	HLA Object Model Development Tool

## JCATS

Name	JCATS
Full Name	JCATS Server
Version	
Commercial POC	Amy Grom
Technical POC	Thierry Grom
Operator	Thierry Grom
Description	Constructive Joint Simulation
Purpose	Joint Land Simulation

#### Federation

Federate Name	JCATS
Federate Type	JLVC
HLA Interface	IEEE 1516-2010
Federate Instances	1

#### Hardware

Name	Owner	Tech POC	Location
JCATS Client Laptop	JFCOM	Thierry Grom	SAF Booth
JCATS Server Laptop	JFCOM	Thierry Grom	SAF Storage

#### Software

Full Name	Version	Description
JCATS Server		Constructive Joint Simulation
JCATS Client		JCATS Client

## JTLS

Name	JTLS
Full Name	JTLS Server
Version	
Commercial POC	
Technical POC	
Operator	
Description	Constructive Joint Simulation
Purpose	Joint Simulation

#### Federation

Federate Name	JTLS
Federate Type	JTLS
HLA Interface	IEEE 1516-2010
Federate Instances	1

#### Hardware

Name	Owner	Tech POC	Location
JTLS Client Laptop	JWC	Andy Brown	NATO Booth
JTLS Server Laptop	JWC	Andy Brown	SAF Storage

## Software

Full Name	Version	Description
JTLS Server		Constructive Joint Simulation
JTLS Client		JTLS Client

## KORA

Name	KORA
Full Name	KORA
Version	
Commercial POC	Karl-Heinz Neumann
Technical POC	Michael Wolf-Bolle
Operator	
Description	Constructive Joint Simulation
Purpose	Joint Simulation

## Federation

Federate Name	KORA
Federate Type	KORA
HLA Interface	IEEE 1516-2010
Federate Instances	1

## Hardware

Remote Site

System	KORA
Owner	IABG
Location	Ottobrunn Site
IP	Remote Site
Tech POC	Karl-Heinz Neumann
Video Switch Input #	
Video Out Resolution	

## ORQUE

Name	ORQUE
Full Name	ORQUE
Version	
Commercial POC	Jose Ruiz
Technical POC	
Operator	

<b>Description</b>	Constructive Maritime Simulation		
<b>Purpose</b>	Maritime Simulation and Air Refueling		

## Hardware

Name	Owner	Tech POC	Location
ORQUE Laptop	DGA	Jose Ruiz	NATO Booth
ALLIGATOR Laptop	DGA	Jose Ruiz	NATO Booth

## Software

Full Name	Version	Description
ORQUE		Constructive Maritime Simulation
ALLIGATOR		ORQUE and WAGRAM bridge to NETN

## PLEXcomm

<b>Name</b>	PLEXcomm
<b>Full Name</b>	PLEXcomm
<b>Version</b>	3.0
<b>Commercial POC</b>	
<b>Technical POC</b>	Jamie Boulet
<b>Operator</b>	All Operators
<b>Description</b>	Radio Simulation
<b>Purpose</b>	Tactical and Admin Radio

## Federation

<b>Federate Name</b>	PLEXcomm
<b>Federate Type</b>	PLEXcomm
<b>HLA Interface</b>	HLA 1.3
<b>Federate Instances</b>	10

## Hardware

Name	Owner	Tech POC	Location
JTLS Client Laptop	JWC	Andy Brown	NATO Booth
LVC Game Laptop	DSTL	Caroline Pettitt-Morris	NATO Booth
Display Control Laptop	Pitch	Per-Philip Sollin	SAF Booth
Google Earth Laptop	FMV	Björn Löfstrand	SAF Booth
JCATS Client Laptop	JFCOM	Thierry Grom	SAF Booth
RTI and Booster Laptop	FMV	Lennart Olsson	SAF Booth
TYR Client Laptop	FMV	Max Karlström	SAF Booth
ITC Laptop	NC3A	Clive Wood	NATO Booth
KORA	IABG	Karl-Heinz Neumann	Ottobrunn Site
VR-Forces	ESP MoD	Patricio Jimenez	Madrid Site

## Software

Full Name	Version	Description
PLEXcomm	3.0	Radio Simulation

## Simulation Infrastructure

Name	Simulation Infrastructure
Full Name	Simulation Infrastructure
Commercial POC	Björn Löfstrand
Technical POC	Per-Philip Sollin
Description	Distributed Simulation Runtime Infrastructure
Purpose	Simulation Interoperability

### Hardware

Name	Owner	Tech POC	Location
RTI and Booster Laptop	FMV	Lennart Olsson	SAF Booth

### Software

Full Name	Version	Description
Pitch Booster	1.2	Private Simulation Network Overlay
Pitch pRTI 1516	4.2	HLA RTI

## TYR

Name	TYR
Full Name	CATS TYR Server
Version	3.2
Commercial POC	Torsten Bernström
Technical POC	Max Karlström
Operator	Max Karlström
Description	Aggregate Level Constructive Simulation
Purpose	Joint Simulation. EXCON / AAR Online

### Federation

Federate Name	TYR Server
Federate Type	TYR Server
HLA Interface	IEEE 1516-2010
Federate Instances	1

### Hardware

Name	Owner	Tech POC	Location

### Software

Full Name	Version	Description
CATS TYR Server	3.2	Aggregate Level Constructive Simulation

## WAGRAM

<b>Name</b>	WAGRAM
<b>Full Name</b>	WAGRAM
<b>Version</b>	
<b>Commercial POC</b>	Jose Ruiz
<b>Technical POC</b>	
<b>Operator</b>	
<b>Description</b>	Constructive Joint Simulation
<b>Purpose</b>	Joint Simulation

### Hardware

Name	Owner	Tech POC	Location
ALLIGATOR Laptop	DGA	Jose Ruiz	NATO Booth
WAGRAM Laptop	DGA	Jose Ruiz	NATO Booth

### Software

Full Name	Version	Description
WAGRAM		Constructive Joint Simulation
ALLIGATOR		ORQUE and WAGRAM bridge to NETN

## VBS2

<b>Name</b>	VBS2		
<b>Full Name</b>	Virtual Battlespace 2		
<b>Version</b>			
<b>Commercial POC</b>	Caroline Pettitt-Morris		
<b>Technical POC</b>	Caroline Pettitt-Morris		
<b>Operator</b>	Caroline Pettitt-Morris		
<b>Description</b>	First Person Virtual Simulation		
<b>Purpose</b>	Lower tactical and UAV simulation. Virtual situation awareness: Land, Air och Media		

### Hardware

Name	Owner	Tech POC	Location
LVC Game Laptop	DSTL	Caroline Pettitt-Morris	NATO Booth
VBS2 UK Laptop	DSTL	Caroline Pettitt-Morris	NATO Booth

### Software

Full Name	Version	Description
LVC Game	3.1.921.27503	VBS2 Bridge to HLA
Virtual Battlespace 2		First Person Virtual Simulation

## VR-Forces

Name	VR-Forces
Full Name	VR-Forces
Version	
Commercial POC	Patricio Jimenez
Technical POC	Patricio Jimenez
Operator	Patricio Jimenez
Description	Constructive Simulation
Purpose	Joint Simulation

### Federation

Federate Name	VR-Forces
Federate Type	VR-Forces
HLA Interface	IEEE 1516-2010
Federate Instances	1

### Hardware

#### Remote Site

System	VR-Forces
Owner	ESP MoD
Location	Madrid Site
IP	Remote Site
Tech POC	Patricio Jimenez
Video Switch Input #	
Video Out Resolution	

## Appendix 2 - Supporting Software

Name	Full Name	Version	System	Description
ALLIGATOR	ALLIGATOR		ORQUE, WAGRAM	ORQUE and WAGRAM bridge to NETN
Actors	Pitch Actors	MSG-068	Integration Support	CGF
Booster	Pitch Booster	1.2	Simulation Infrastructure	Private Simulation Network Overlay
Commander Agent	Pitch Commander Agent	2.2.0	Commander	Agent for monitoring and control
ITC	ITC Flames		ICC	Constructive Air Simulation and ICC stimulation
JCATS Client	JCATS Client		JCATS	JCATS Client
JTLS Client	JTLS Client		JTLS	JTLS Client
LVC Game	LVC Game	3.1.921.27503	VBS2	VBS2 Bridge to HLA
NETN Service Manager	Pitch NETN Service Manager	MSG-068	Integration Support	Test tool for NETN Consumer-Provider Patterns
Pitch GE Adapter	Pitch GE Adapter	1.4	Google Earth	Google Earth Adapter for HLA
Recorder	Pitch Recorder	1.5	Integration Support	Simulation Traffic Record, Analysis and Playback

TYR Client	CATS TYR Client	3.2	TYR	TYR Client Federate
Visual OMT	Pitch Visual OMT 1516	2.0	Integration Support	HLA Object Model Development Tool
pRTI 1516	Pitch pRTI 1516	4.2	Simulation Infrastructure	HLA RTI

## Actors

Name	Actors
System	Integration Support
Full Name	Pitch Actors
Version	MSG-068
Commercial POC	
Technical POC	Lennart Olsson
Operator	Lennart Olsson
Description	CGF

## Federation

Federate Name	Actors
Federate Type	Actors
HLA Interface	IEEE 1516-2010
Federate Instances	1

## ALLIGATOR

Name	ALLIGATOR
System	ORQUE, WAGRAM
Full Name	ALLIGATOR
Version	
Commercial POC	
Technical POC	
Operator	
Description	ORQUE and WAGRAM bridge to NETN

## Federation

Federate Name	ORQUE&WAGRAM
Federate Type	ALLIGATOR
HLA Interface	IEEE 1516-2010
Federate Instances	1

## Booster

Name	Booster
Full Name	Pitch Booster
Version	1.2
System	Simulation Infrastructure

<b>Commercial POC</b>	Björn Löfstrand
<b>Technical POC</b>	Per-Philip Sollin
<b>Operator</b>	Lennart Olsson
<b>Description</b>	Private Simulation Network Overlay
<b>Purpose</b>	Simulation Interoperability

## Commander Agent

<b>Name</b>	Commander Agent
<b>System</b>	Commander
<b>Full Name</b>	Pitch Commander Agent
<b>Federate Name</b>	Commander
<b>Federate Type</b>	Commander Agent
<b>Version</b>	2.2.0
<b>Commercial POC</b>	Björn Löfstrand
<b>Technical POC</b>	Björn Löfstrand
<b>Operator</b>	Björn Löfstrand
<b>Description</b>	Agent for monitoring and control

## Federation

<b>Federate Name</b>	Commander
<b>Federate Type</b>	Commander Agent
<b>HLA Interface</b>	IEEE 1516-2010
<b>Federate Instances</b>	1

## GE Adapter

<b>Name</b>	Pitch GE Adapter
<b>System</b>	Google Earth
<b>Full Name</b>	Pitch GE Adapter
<b>Federate Name</b>	Google Earth
<b>Federate Type</b>	GE Adapter
<b>Version</b>	1.4
<b>Commercial POC</b>	Björn Löfstrand
<b>Technical POC</b>	Björn Löfstrand
<b>Operator</b>	Björn Löfstrand
<b>Description</b>	Google Earth Adapter for HLA

## Federation

<b>Federate Name</b>	Google Earth
<b>Federate Type</b>	GE Adapter
<b>HLA Interface</b>	IEEE 1516-2010
<b>Federate Instances</b>	1

## ITC

Name	ITC
Full Name	ITC Flames
Version	
System	ICC
Commercial POC	Clive Wood
Technical POC	Clive Wood
Operator	Clive Wood/Richard Hall
Description	Constructive Air Simulation and ICC stimulation

## Federation

Federate Name	ITC Flames
Federate Type	ITC Flames
HLA Interface	HLA 1.3
Federate Instances	1

## JCATS Client

Name	JCATS Client
System	JCATS
Full Name	JCATS Client
Version	
Commercial POC	
Technical POC	
Operator	
Description	JCATS Client

## JTLS Client

Name	JTLS Client
System	JTLS
Full Name	JTLS Client
Version	
Commercial POC	
Technical POC	
Operator	
Description	JTLS Client

## LVC Game

Name	LVC Game
System	VBS2
Full Name	LVC Game
Federate Name	VBS2

<b>Federate Type</b>	LVC Game
<b>Version</b>	3.1.921.27503
<b>Commercial POC</b>	
<b>Technical POC</b>	Caroline Pettitt-Morris
<b>Operator</b>	
<b>Description</b>	VBS2 Bridge to HLA

#### Federation

<b>Federate Name</b>	VBS2
<b>Federate Type</b>	LVC Game
<b>HLA Interface</b>	IEEE 1516-2010
<b>Federate Instances</b>	1

### NETN Service Manager

<b>Name</b>	NETN Service Manager
<b>System</b>	Integration Support
<b>Full Name</b>	Pitch NETN Service Manager
<b>Version</b>	MSG-068
<b>Commercial POC</b>	
<b>Technical POC</b>	Lennart Olsson
<b>Operator</b>	Lennart Olsson
<b>Description</b>	Test tool for NETN Consumer-Provider Patterns

#### Federation

<b>Federate Name</b>	Service Manager
<b>Federate Type</b>	NETN Service Manager
<b>HLA Interface</b>	IEEE 1516-2010
<b>Federate Instances</b>	1

### pRTI 1516

<b>Name</b>	pRTI 1516
<b>Full Name</b>	Pitch pRTI 1516
<b>Version</b>	4.2
<b>System</b>	Simulation Infrastructure
<b>Commercial POC</b>	Björn Löfstrand
<b>Technical POC</b>	Per-Philip Söllin
<b>Operator</b>	Lennart Olsson
<b>Description</b>	HLA RTI

### Recorder

<b>Name</b>	Recorder
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<b>System</b>	Integration Support
<b>Full Name</b>	Pitch Recorder
<b>Version</b>	1.5
<b>Commercial POC</b>	Björn Löfstrand
<b>Technical POC</b>	Lennart Olsson
<b>Operator</b>	Lennart Olsson
<b>Description</b>	Simulation Traffic Record, Analysis and Playback

#### Federation

<b>Federate Name</b>	Pitch Recorder
<b>Federate Type</b>	Recorder
<b>HLA Interface</b>	IEEE 1516-2010
<b>Federate Instances</b>	1

#### TYR Client

<b>Name</b>	TYR Client
<b>System</b>	TYR
<b>Full Name</b>	CATS TYR Client
<b>Version</b>	3.2
<b>Commercial POC</b>	Torsten Bernström
<b>Technical POC</b>	Max Karlström
<b>Operator</b>	Max Karlström
<b>Description</b>	TYR Client Federate

#### Federation

<b>Federate Name</b>	TYR Client
<b>Federate Type</b>	TYR Client
<b>HLA Interface</b>	IEEE 1516-2010
<b>Federate Instances</b>	1

#### Visual OMT

<b>Name</b>	Visual OMT
<b>System</b>	Integration Support
<b>Full Name</b>	Pitch Visual OMT 1516
<b>Version</b>	2.0
<b>Commercial POC</b>	Björn Löfstrand
<b>Technical POC</b>	Lennart Olsson
<b>Operator</b>	Lennart Olsson
<b>Description</b>	HLA Object Model Development Tool

#### Appendix 3 - Hardware

Name	System	Owner	Location	IP	Tech POC
Display Control Laptop	AV System, PLEXcomm	Pitch	SAF Booth	192.168.10.07	Per-Philip Sollin
Google Earth Laptop	Google Earth, PLEXcomm	FMV	SAF Booth	192.168.10.11	Björn Löfstrand
RTI and Booster Laptop	Simulation Infrastructure, Integration Support, PLEXcomm	FMV	SAF Booth	192.168.10.12 + Public IP	Lennart Olsson
TYR Server Laptop	TYR	FMV	SAF Storage	192.168.10.13	Max Karlström
TYR Client Laptop	TYR, PLEXcomm	FMV	SAF Booth	192.168.10.14	Max Karlström
JCATS Server Laptop	JCATS	JFCOM	SAF Storage	192.168.10.15	Thierry Grom
JCATS Client Laptop	JCATS, PLEXcomm	JFCOM	SAF Booth	192.168.10.16	Thierry Grom
ITC Laptop	ICC, PLEXcomm	NC3A	NATO Booth	192.168.10.17	Clive Wood
ICC Laptop	ICC	NC3A	NATO Booth	192.168.10.18	Clive Wood
ORQUE Laptop	ORQUE	DGA	NATO Booth	192.168.10.19	Jose Ruiz
WAGRAM Laptop	WAGRAM	DGA	NATO Booth	192.168.10.20	Jose Ruiz
ALLIGATOR Laptop	ORQUE, WAGRAM	DGA	NATO Booth	192.168.10.21	Jose Ruiz
JTLS Client Laptop	JTLS, PLEXcomm	JWC	NATO Booth	192.168.10.22	Andy Brown
JTLS Server Laptop	JTLS	JWC	SAF Storage	192.168.10.23	Andy Brown
VBS2 UK Laptop	VBS2	DSTL	NATO Booth	192.168.10.24	Caroline Pettitt-Morris
LVC Game Laptop	VBS2, PLEXcomm	DSTL	NATO Booth	192.168.10.25	Caroline Pettitt-Morris
KORA	KORA	IABG	Ottobrunn Site	Remote Site	Karl-Heinz Neumann
VR-Forces	VR-Forces	ESP MoD	Madrid Site	Remote Site	Patricio Jimenez
External Monitor NATO Right	AV System	JFCOM	NATO Booth		Jim Janele
External Monitor NATO Center	AV System	JFCOM	NATO Booth		Jim Janele
External Monitor NATO Left	AV System	JFCOM	NATO Booth		Jim Janele
External Monitor FedExCtrl	AV System	JFCOM	SAF Booth		Jim Janele
16x16 Video Switch	AV System	JFCOM	SAF Storage		Jim Janele

## 16x16 Video Switch

Name	16x16 Video Switch
System	AV System
Owner	JFCOM
Location	SAF Storage
Tech POC	Jim Janele

## ALLIGATOR Laptop

Name	ALLIGATOR Laptop
System	ORQUE, WAGRAM
Owner	DGA
Location	NATO Booth
IP	192.168.10.21
Tech POC	Jose Ruiz
Video Switch Input #	
Video Out Resolution	

## Display Control Laptop

Name	Display Control Laptop
System	AV System, PLEXcomm
Owner	Pitch
Location	SAF Booth
IP	192.168.10.07
Tech POC	Per-Philip Sollin

## External Monitor FedExCtrl

Name	External Monitor FedExCtrl
System	AV System
Owner	JFCOM
Location	SAF Booth
Tech POC	Jim Janele
Video Output #	5

## External Monitor NATO Center

Name	External Monitor NATO Center
System	AV System
Owner	JFCOM
Description	60" Plasma
Location	NATO Booth
Tech POC	Jim Janele
Video Output #	1

## External Monitor NATO Left

Name	External Monitor NATO Left
System	AV System
Owner	JFCOM
Location	NATO Booth
Tech POC	Jim Janele

<b>Video Output #</b>	2
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## External Monitor NATO Right

<b>Name</b>	External Monitor NATO Right
<b>System</b>	AV System
<b>Owner</b>	JFCOM
<b>Location</b>	NATO Booth
<b>Tech POC</b>	Jim Janele
<b>Video Output #</b>	3

## Google Earth Laptop

<b>Name</b>	Google Earth Laptop
<b>System</b>	Google Earth, PLEXcomm
<b>Owner</b>	FMV
<b>Location</b>	SAF Booth
<b>IP</b>	192.168.10.11
<b>Tech POC</b>	Björn Löfstrand
<b>Video Switch Input #</b>	7
<b>Video Out Resolution</b>	

## ICC Laptop

<b>Name</b>	ICC Laptop
<b>System</b>	ICC
<b>Owner</b>	NC3A
<b>Location</b>	NATO Booth
<b>IP</b>	192.168.10.18
<b>Tech POC</b>	Clive Wood
<b>Video Switch Input #</b>	9
<b>Video Out Resolution</b>	

## ITC Laptop

<b>Name</b>	ITC Laptop
<b>System</b>	ICC, PLEXcomm
<b>Owner</b>	NC3A
<b>Location</b>	NATO Booth
<b>IP</b>	192.168.10.17
<b>Tech POC</b>	Clive Wood
<b>Video Switch Input #</b>	10
<b>Video Out Resolution</b>	

## JCATS Client Laptop

Name	JCATS Client Laptop
System	JCATS, PLEXcomm
Owner	JFCOM
Location	SAF Booth
IP	192.168.10.16
Tech POC	Thierry Grom
Video Switch Input #	2
Video Out Resolution	

### JCATS Server Laptop

Name	JCATS Server Laptop
System	JCATS
Owner	JFCOM
Location	SAF Storage
IP	192.168.10.15
Tech POC	Thierry Grom

### JTLS Client Laptop

Name	JTLS Client Laptop
System	JTLS, PLEXcomm
Owner	JWC
Location	NATO Booth
IP	192.168.10.22
Tech POC	Andy Brown
Video Switch Input #	13
Video Out Resolution	

### JTLS Server Laptop

Name	JTLS Server Laptop
System	JTLS
Owner	JWC
Location	SAF Storage
IP	192.168.10.23
Tech POC	Andy Brown
Video Switch Input #	
Video Out Resolution	

### LVC Game Laptop

Name	LVC Game Laptop
System	VBS2, PLEXcomm
Owner	DSTL

<b>Location</b>	NATO Booth
<b>IP</b>	192.168.10.25
<b>Tech POC</b>	Caroline Pettitt-Morris
<b>Video Switch Input #</b>	
<b>Video Out Resolution</b>	

## ORQUE Laptop

<b>Name</b>	ORQUE Laptop
<b>System</b>	ORQUE
<b>Owner</b>	DGA
<b>Location</b>	NATO Booth
<b>IP</b>	192.168.10.19
<b>Tech POC</b>	Jose Ruiz
<b>Video Switch Input #</b>	16
<b>Video Out Resolution</b>	

## RTI and Booster Laptop

<b>Name</b>	RTI and Booster Laptop
<b>System</b>	Simulation Infrastructure, Integration Support, PLEXcomm
<b>Owner</b>	FMV
<b>Location</b>	SAF Booth
<b>IP</b>	192.168.10.12 + Public IP
<b>Tech POC</b>	Lennart Olsson

## TYR Client Laptop

<b>Name</b>	TYR Client Laptop
<b>System</b>	TYR, PLEXcomm
<b>Owner</b>	FMV
<b>Location</b>	SAF Booth
<b>IP</b>	192.168.10.14
<b>Tech POC</b>	Max Karlström
<b>Video Switch Input #</b>	8
<b>Video Out Resolution</b>	

## TYR Server Laptop

<b>Name</b>	TYR Server Laptop
<b>System</b>	TYR
<b>Owner</b>	FMV
<b>Location</b>	SAF Storage
<b>IP</b>	192.168.10.13
<b>Tech POC</b>	Max Karlström

## **WAGRAM Laptop**

<b>Name</b>	WAGRAM Laptop
<b>System</b>	WAGRAM
<b>Owner</b>	DGA
<b>Location</b>	NATO Booth
<b>IP</b>	192.168.10.20
<b>Tech POC</b>	Jose Ruiz
<b>Video Switch Input #</b>	14
<b>Video Out Resolution</b>	

## **VBS2 UK Laptop**

<b>Name</b>	VBS2 UK Laptop
<b>System</b>	VBS2
<b>Owner</b>	DSTL
<b>Location</b>	NATO Booth
<b>IP</b>	192.168.10.24
<b>Tech POC</b>	Caroline Pettitt-Morris
<b>Video Switch Input #</b>	12
<b>Video Out Resolution</b>	