



NORTHROP GRUMMAN

THE CGA: A New Tool for the CJMTK Community

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Setting the stage

- Requirement for Geospatial Data for your applications
 - Tie your work back to ground truth (Earth)
 - Large amounts of data available to the DoD/IC
- Issues:
 - Cost of data loading/implementation
 - Ease of use
 - Accredited implementation

CJMTK program basics

- Provides essential software tool kit for data management, analysis and visualization of geospatial intelligence (GEOINT) through the Commercial Joint Mapping Toolkit (CJMTK)
- Under CJMT contract, government negotiated and paid for license agreement to provide COTS geospatial software to the DoD C2I community
- CJMTK Contract Team: Northrop Grumman with ESRI and AGI as a teammates
- Mission Applications approved for use of CJMTK based on license agreement criteria
- CJMTK users: System integrators who build C2I Mission Applications
- CJMTK applications can be any of the following:
 - Stand Alone Client applications
 - Server-based applications
 - Some combination of above

Current Status of CJMTK Program

- 6th year of operational use
 - Contract effective thru Mar 2014
- Released the 9.3.1 version of CJMTK this summer
- 204 C2I Systems approved
 - 55 successfully fielded using CJMTK
 - 96800 estimated number of end user platforms
 - MCS, DCGS-A, DTSS, C2PC, Gale
 - Approx 339,800 end user platforms
- Migration Support available
 - CJMTK SME's provide integration assistance
 - Architectural guidance, prototype development

CJMTK Active Migration (June 2009)



Air Force	Army			Coast Guard	DISA			Marine Corps	Navy		
AME	AFATDS	FAAD C2I	SU	COMDAC-INS	AF	IIMS	D	CJSMPT	CIHEP	AEA_UPC	PCIMAT
DASEA	AMDWS	FBCB2	TAIS	SCCS	AF	ISPAN	D	DRRS	GBOSS	AESOP	RNOMI
FAS	ANS	FOS	TES		AF	JASMAD	D	GALE	IAS	Builder	RP-1
QF	ARCHER	GCCS-A	THAAD C2BMC		AF	JMPS	D	GCCS-J	IFCS	CADRT	SLBM/SSBN /SSGN
Senior Scout	ARES-FIST	GTIC	TITAN		AF	MWR	D	GCSS	MAGTF C2	CVTSC	SureTrak
TASS	BCID Prototype	ICS	TSP		AF	NIDS II	D	HARVESTNET	NFIE	DCGS-N	TCS/UAV
WIDE	BC-PPS	IMETS	UGCV-UPI		AF	NPES	D	JMLRT	RIPPLE	FHPGIS	TRITON
	BCS3	IMS	URBAN		AF	UCAV-OVI	D	JOEF	SPEED	GCCS-M	TSCE
	BTRA	IPB-DA	Web GIS		AF	VISION	D	NECC SA	TLDHS	JCDX	TTWCS
	C2ORE	JADOCS	WIN-T		A	DDVM	D	PACC	TPCS/MPC	LCS SUW MP	USW DSS
	C4ISR L1F	JAWS	WMIS		A	DiamondBack	D	SMADS	TRSS	NFCS	
	CAPEX-MCS Interop	MEADS			A	Guardrail	MC	Gunslinger		NIODN	
	CGS	MTGUI			A	JC2S	MC	MSDS		NURTAC GIS	
	DCGS-A Fixed	NGIC-WF			A	JGES-APP	N	CCS			
	DCGS-A V3	PCI			A	JWNM	N	DIO-S			
	DCGS-A V4	SDSI					N	MUOS			
	ENFIRE	SOMPE									
	EQ-36	SoScoe									

CJMTK Fielded Community (Jun 2009)



Air Force	Army	Coast Guard	DISA				Marine Corps	Navy
COMET	ASAS-ACE-E	SAROPS	AF	AMR	D	SensUtilityExp	C2PC	ARIEL
DCGS	ASAS-L		AF	JAAWIN	D	STRAT-GATEWAY (SKIWEB)	RREP	JEM
GDSS2	AWARE		AF	JSS	MC	JSTARS	TCAC	MPMM
GeoReach	CAPE/MC2		AF	SISP	N	CFn	TCO	TUSW
IMOM	CPOF		AF	SS	N	COLLECTOR-EIPB	TEG	
ISC2	DAGR		A	ASOMS			TPC	
JET	DCARS		A	FSEP				
PFPS	DCGS-A V2		A	Information IPE				
RadarWeb	DTSS		A	WEBCOP				
UL/UC2	FUSIONNET		D	C2BMC Planner				
	IREMBASS/ AMDS		D	DARTS				
	MAPSERVER		D	GIG COP				
	MCS		D	IWMDT				
	NSOF		D	JFP ACTD				
	RATL							

Challenges for CJMTK Mission Application Developers



- System Integrator capabilities
 - Strong knowledge of C2
 - Often limited experience in Geospatial domain
- CJMTK program does not provide data nor data implementations (data models)
- Large learning curve to develop robust, high performance data servers utilizing CJMTK (ESRI) tools
- Implementing geospatial data servers that meet Security Accreditation requirements
- Loading and maintaining geospatial data is a time consuming process

What is an Appliance?

- Device designed to perform a specific function
 - Inner workings are irrelevant to the ultimate user
 - Black box concept
- Characteristics of a good Appliance
 - Transparent to the User
 - Increase in performance
 - Easy to install and administer
 - Low maintenance costs

Concepts taken from: http://www.intelsols.com/documents/lmhoff_05-03.pdf

What is the CGA™?

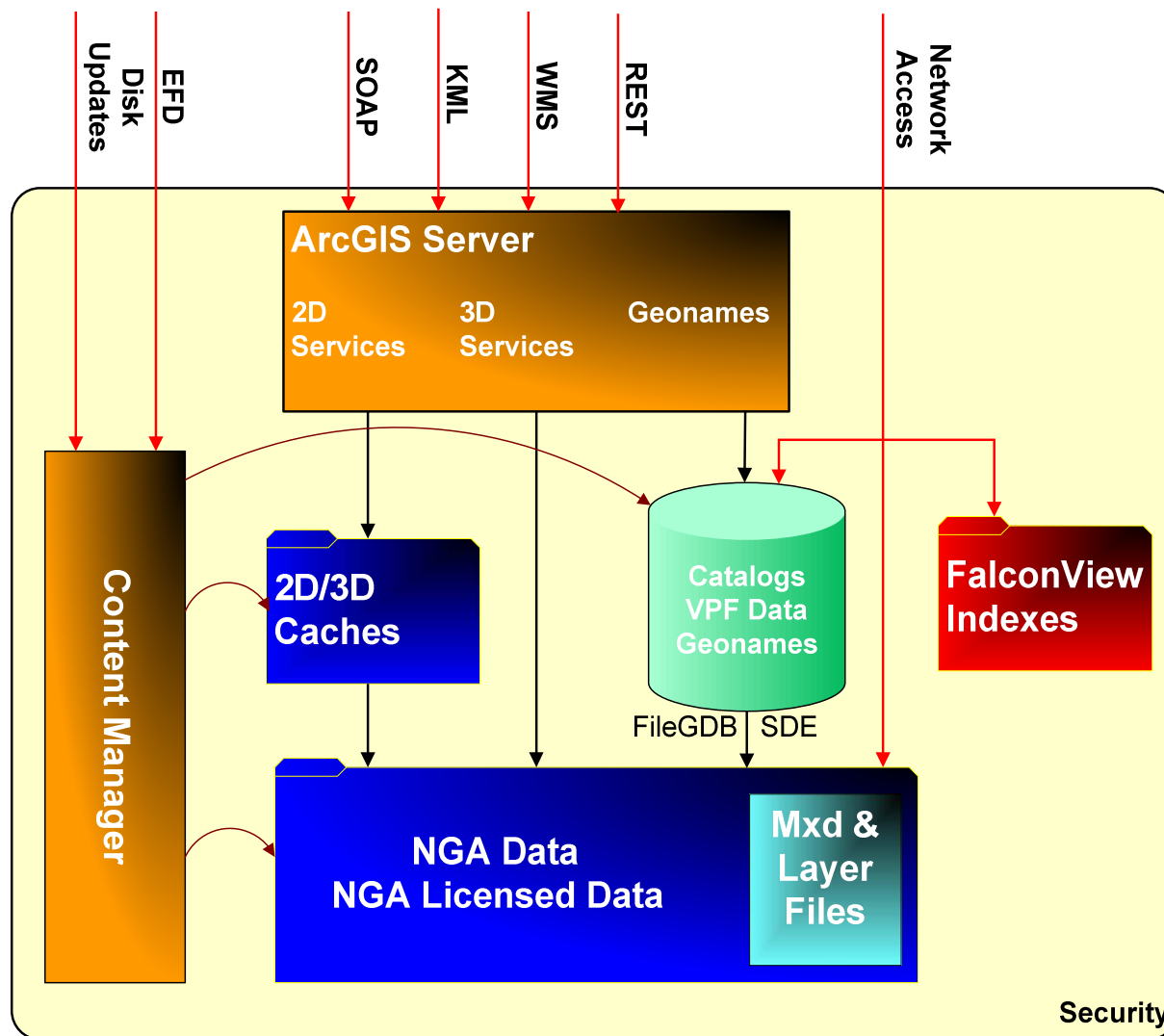
- A bundled and well integrated set of software, hardware and application ready data with solutions for
 - Office/Enterprise Environment
 - Forward Deployed Environment
 - Mobile Environment



CGA™ Components

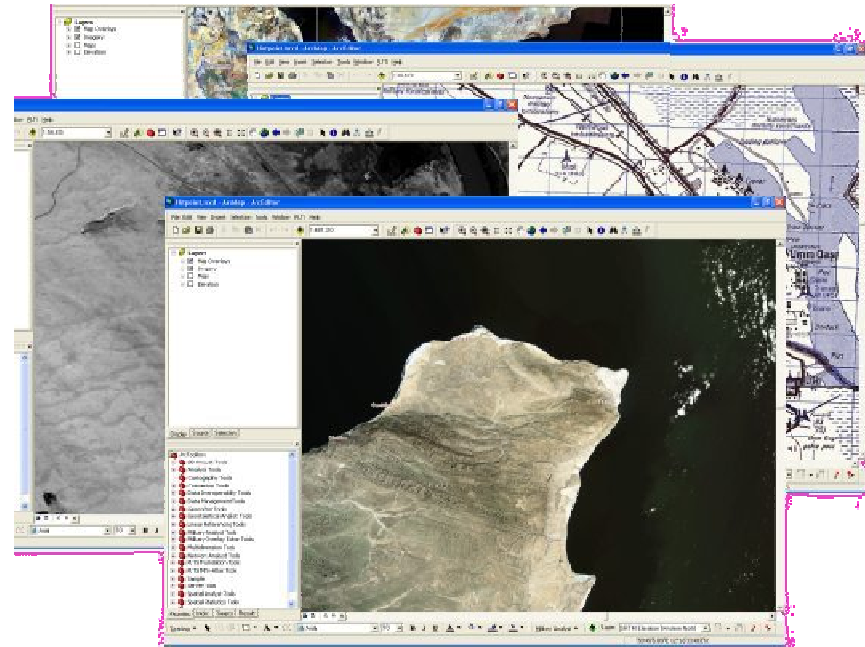
- **Application Ready Data**
 - Standard NGA products – world wide
 - General worldwide coverage data (ArcGIS data and maps)
- **Access Methods**
 - File sharing for applications requiring native format data
 - GeoDatabase for CJMTK Mission Applications and ESRI ArcGIS users
 - Web services (WMS, KML, SOAP, REST)
- **Preconfigured Content and Applications**
 - Map documents
 - Layer files
 - Map services
- **Content Management Tools**
 - Map database / cache updates
 - Data Administration

How Does the CGA™ Work?



How is it organized?

- Maps
- Imagery
- Vector Maps
- Nautical Charts
- Elevation



Continuous, common datum and coordinate system
Optimized for rapid display (Indexing, Caching) Symbolization

CGA™ Models



CGA Rack Unit
CGA09R



CGA Rugged Unit
CGA09D



CGA Vehicle Mount Unit
CGA09V

Model	Use
CGA09R	For use in an office environment for up to 300 users
CGA09D	For use in a forward deployed environment with up to 50 users
CGA09V	For use in a mobile environment with up to 50 users

<u>Software Name</u>	<u>Manufacturer</u>	<u>Version</u>
WSQL Server Standard 64 bit (Rack Only)	Microsoft	2003 R2
Windows Server 64-Bit	Microsoft	2003 R2
ArcGIS Server Advanced (WorkGroup/Enterprise)	ESRI	9.3 SP1
ArcGIS Server 3D Analyst (WorkGroup/Enterprise)	ESRI	9.3 SP1
ArcGIS Server Spatial Analyst (WorkGroup/Enterprise)	ESRI	9.3 SP1
ArcGIS Desktop (ArcEditor - Single User)	ESRI	9.3 SP1
ArcGIS Spatial Analyst (ArcEditor - Single User)	ESRI	9.3 SP1
ArcGIS 3D Analyst (ArcEditor - Single User)	ESRI	9.3 SP1
ArcGIS Military Analyst	ESRI	9.3 SP1
MOLE	ESRI	9.3 SP1
Defense Enterprise Data Management Tools	ESRI	9.3
Voyager	Voyager GIS	1.0
Symantec AntiVirus Corporate Edition	Symantec	10.1
Symantec Ghost Solution Suite	Symantec	2.0
WinAudit - System Audit Tool - Freeware	Parmavex	2.25
BGInfo - Desktop Background Information	Microsoft	4.11
Help Viewer	Madcap	n/a

CGA Data Content



<u>Mission/ Scale</u>	<u>Maps</u>	<u>Imagery</u>	<u>Terrain</u>	<u>Vector</u>
Global Base 1:160,000,000- 1:10,000,000	ArcGIS Data and Maps raster	Imagery and Shaded Relief (ArcGIS Data and Maps)	ArcGIS Data and Maps	ArcGIS Data and Maps
Strategic Base 1:10,000,000- 1:1,000,000	CADRG- GNC/JNC, ONC	Imagery and Shaded Relief (ArcGIS Data and Maps)	ArcGIS Data and Maps, Elevation Data	VMap 0
Operational Base 1:1,000,000- 1:250,000	CADRG- TPC,JOG	Natural View	ArcGIS Data and Maps, Elevation Data	VMap 1 DNC
Tactical Base 1:100,000-1:50,000	CADRG- TLM	CIB 10, 5	DTED 2	VMap 2 DNC
Urban Base 1:12,500 - 1:5,000	City Graphics	CIB 5, 1	None	UVMaP

Other Data

- GeoNames and Gazetteer

NOTE: Government data is LIMDIS

CGA Certified Client Program

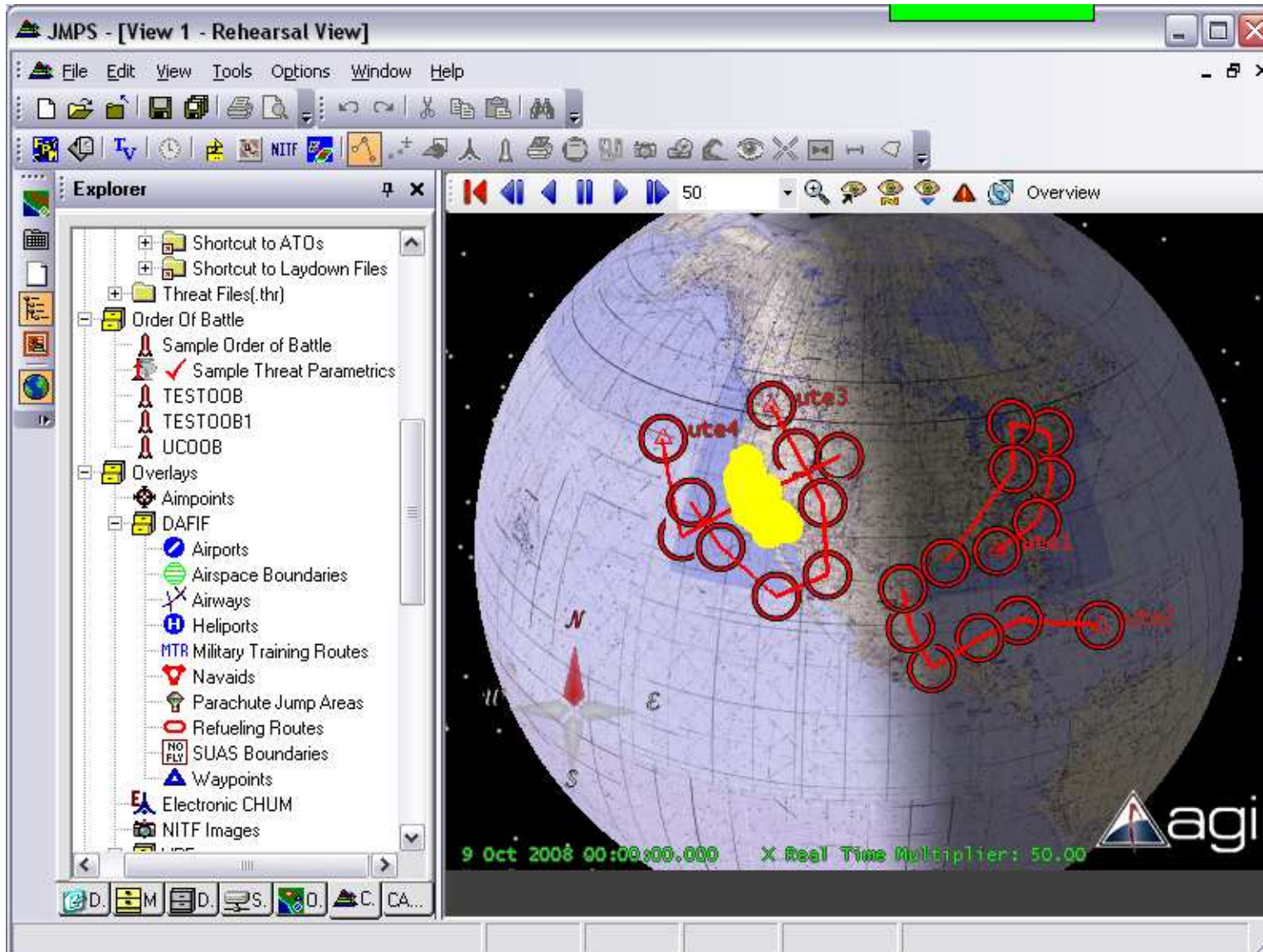
- ArcGIS ArcView 9.3
- ArcGIS ArcEditor 9.3
- ArcGIS ArcINFO 9.3
- ArcGIS Explorer (build 9.2.500)
- AGI Viewer 9.0
- STK 9.0/Engine 9.0
- FalconView 4.1
- Gaia 3.3
- Socet GXP 3.0
- Skyline Globe 5.1
- Google Earth (build 5.0.1)



For the most up to date list of CGA Certified Clients go to:
www.GeospatialAppliance.com/CertifiedClient

CGA™ Integration into JMPS and STK

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CGA Service Plan – First year included



- Hardware Warranty
- Help Desk Support
 - CGA Support
 - ArcGIS Server (Developer Support)
- Updates
 - include accumulated NGA updates every 4 months
 - updates to ESRI and CGA software
- Hardware refresh at the end of every three years

Security Accreditation Support



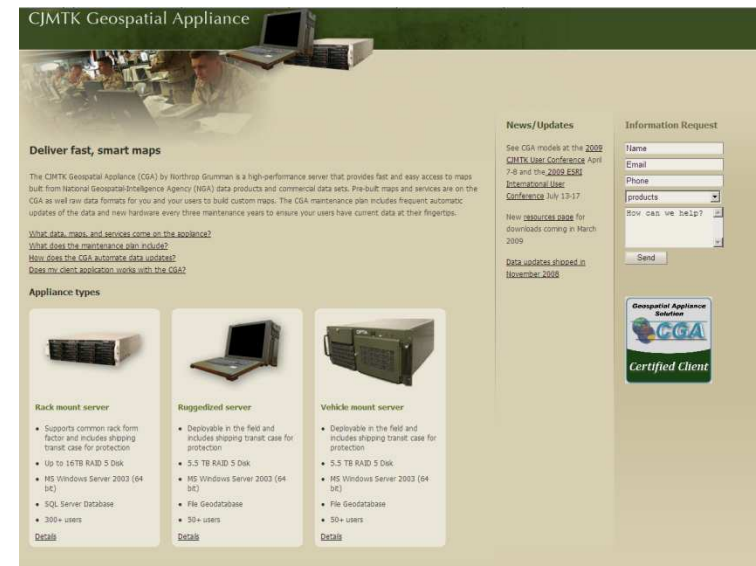
- Working with Government Sponsors:
 - JWICS
 - SIPRNET
- Working with individual agencies/sites:
 - Documentation Support
 - Software baseline/Version Description document
 - Requirements etc,
 - Security updates
 - IAVA testing
 - Gold Disk Scan results

CGA Version 2.0

- Target Release Fall 2009
- Major Features include:
 - Data Discovery (Voyager)
 - Zip and Ship Service
 - Metadata Access
 - Content Management Enhancements
 - Scheduling capability for Content Manager
 - Data overwrite capability
 - CGA Reporting Dashboard
 - User Logs
 - Update logs
 - FalconView/TalonView Catalog Integration
 - 4.1 Distributed Map Data Server (DMDS)
 - Additional Data Support
 - AAFIF

CGA Support and Information

- Visit the CGA web site for
 - CGA Order information (including Request for Quote form)
 - Additional Information on the CGA
 - Help Desk Support
 - Restricted are for:
 - IAVA update results
 - Gold Disk Scan results
 - Download area
 - Sys Admin Guide
 - Software Release Notes
 - etc.)



www.GeospatialAppliance.com

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