

# MKS at ITT: Managing ATM Projects

*A Presentation for WDCA CMWG*

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ADS-B Configuration Manager

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# Agenda

1. Where we started
2. Why MKS
3. MKS Integration
4. Process Workflow

# WHERE WE STARTED



# Sharepoint

- Used as primary document repository
  - CCB Materials
  - Request For Change (RFCs)
  - Program Trouble Reports (PTRs)
  - Release Request (RRs)
  - CDRLs
  - Status Accounting Logs
  - Subcontractor documentation/releases

# A page in the day of Sharepoint

The screenshot shows a Windows Internet Explorer browser window with the following details:

- Address Bar:** <http://sbssintranet/SH/org/cm/CFAT%20Test%20Procedures/Forms/AllItems.aspx>
- Page Title:** FAT Test Plans and Procedures
- Navigation:** SBSS Portal Home > SBS Home Redesign
- Header:** ITT Configuration Management. Includes a search bar for 'All Sites' and a 'Welcome Jones, Phyllis - AES' message.
- Menu:** Organization (selected), SubSystems, SVs and SDPs, Tracker, FAA, Vendors1, Vendors2, Site Actions.
- Breadcrumbs:** SBS Home Redesign > Organization > Configuration Management > FAT Test Plans and Procedures
- Main Content:** 'FAT Test Plans and Procedures' section with a table of documents.
- Left Sidebar:** 'Documents' section with a tree view including 'Shared Documents', 'FAT Test Plans and Procedures', 'CSA (Conf Status Accounting) Logs', 'SAT Test Plans and Procedures', 'SIT Plans and Procedures', 'FAA Documents', 'ISAT Reports', 'O&M', 'Released Drawings', and 'Peer Reviews'.
- Table:** 'Test Plans and Procedures for CFAT' table with columns: Type, Name, Modified, and Modified By.
- Footer:** 'Done' status bar and 'Local intranet' connection indicator.

Type	Name	Modified	Modified By
Folder	ADS-B	8/28/2009 10:45 AM	Jones, Phyllis - AES
Folder	ADS-R	8/27/2009 12:59 PM	Jones, Phyllis - AES
Folder	CAT23	8/28/2009 11:09 AM	Jones, Phyllis - AES
Folder	FIS-B	8/28/2009 10:55 AM	Jones, Phyllis - AES
Folder	Radio	8/28/2009 11:10 AM	Jones, Phyllis - AES
Folder	SDP	8/28/2009 11:12 AM	Jones, Phyllis - AES
Folder	TIS-B	8/28/2009 10:55 AM	Jones, Phyllis - AES
Folder	TPMM	8/28/2009 10:55 AM	Jones, Phyllis - AES
Folder	VAS	1/26/2010 1:53 PM	Foley, Theresa - AES
Folder	Virtual RADAR	8/28/2009 10:57 AM	Jones, Phyllis - AES



# Excel used as primary tracking tool

- Excel was used to track EVERYTHING
  - CSA logs
  - Lease Info
  - Document Process Status
  - Test Information
  - Status of Test Information
  - New Sites
  - Construction
  - Etc. etc. etc.

# Information All Over the Place

Our users love keeping important program information on:

- Their individual workstation hard drives
- Network hard drive (in various locations)

Problems:

- No Structure
- Various locations to find similar data
- Confusing
- Unable to locate the “holder” of the info when needed.

Even in Sharepoint it was a problem because we just kept creating more tabs and folders. Everyone was not updated on where new information was being kept consistently.

# WHY MKS





# NEEDS / VENDORS

Documented our requirements for a CM Tool

- One database to hold program information
- Relational
- Hardware Control
- Document Management
- Software Control
- Easy to implement program processes
- Future maintenance costs

Sent out RFPs to the following companies

- IBM
- CMstat
- MKS

# IBM

## Maximo Asset Configuration Management System

### Pros:

- Provides a highly structured, user definable solution
- Geared towards our hardware control requirement
- Module-based system (work management, inventory management, procurement management, etc)

### Cons:

- The design must be well defined
- The system is too structured and maintenance intensive
- \$\$\$\$

# CMSTAT

## Pros:

- Administration module made it a one-stop shop to customize the application
- Standardized workflow templates
- Item/Part Management module well thought out. HW management is their specialty
- Highly modularized

## Cons:

- Customizations had to be done by CMstat (including form name changes, workflow mods)
- The interface was “klugy,” non-intuitive.
- \$\$\$

# MKS

## Pros:

- Speed of bringing the system “live” (having a useable system developed and ready to populate)
- Fully configurable by in-house staff
- Build the support structure as we need it and how we need it (hardware, document management, etc.)
- Highly relational

## Cons:

- Too many triggers can slow performance
- Would prefer a true custom report writer
- \$\$\$

# MKS INTEGRATION



# MEETINGS

- Our Vision
- Buy-In
- Each Group's Input on Process Flows affecting them
- Managing Expectations

# Our Vision

- Our vision is to have a Single Source of Truth.

*Having a database design affords that*

- The ability to Relate data was also crucial.

*What PTRs affect a new software release*

or

*What technical documents were affected  
by a RFC.*

# BUY-IN

•To communicate our vision and assess use of the tool, we met with teams from:

- Implementation and Construction
- Systems Engineering
- Development
- Test
- Procurement
- Finance
- Production
- Operations and Maintenance
- Product Assurance



# PROCESS FLOWS

- At each team meeting, we mapped out their process flows for items that they manage, such as
  - Specifications, drawings, etc. (Release Request / approval flows)
  - Developed software (ready to test flows)
  - Deployment (Release Request /approval flows)
  - New parts orders (Production / buyer flows)
  - Construction (site readiness flows)
  - O&M (site maintenance / field flows)

Just to name a few . . .

# MANAGE EXPECTATIONS

Don't promise the world! Be realistic.

# DEVELOPING THE TOOL

- Those trained as MKS Administrators took a team's requirements and worked on their "type" or form and associated workflows.
- Look at how each team's information relates to another's.
  - Example: The test team's PTRs should be linked to the Software records that are being released.
  - Or a lease should be linked to the site.
- Reiterations with each team in the organization to
  - *Improve and*
  - *Refine!*

# RECORD LINK EXAMPLE

The screenshot shows a web browser window displaying the 'Items View [Request For Change]' page. The page title is 'Request For Change: 22396'. The record was created by Ray Via on Mar 28, 2011 12:19:10 PM and modified by Ray Via on Sep 1, 2011 1:37:42 PM. The record title is 'Upgrade IOS to 15.0(1)M5 Pilot'. The impacted organizations are AT&T Tier 3 O&M, and the impacted subcontractors are AT&T. The impact type is Hardware/Software, and the funded task is 'Verify'. The 'Impacts Software' table contains one record with ID 6120, Type Software, Software Type Router, and Version 15.0(1)M1. The 'Impacts Documents' table contains one record with ID 23646, Document Type SCP, Type Document, and Number SCP094. The 'Cost Impact' section is partially visible. An orange arrow points to the link '6120' in the 'Impacts Software' table, with the text 'A link to a software record' next to it.

Items View [Request For Change] - Windows Internet Explorer provided by ITT Corporation - AES

http://01hrmks09-1:7001/im;jsessionid=68CF836E3A8C73EF4B6FCFA73646BD1B?mks.commandRunner=4812#18

McAfee

Items View [Request For Change]

MKS

Create Software

go to item

search all items

Time Entries | My Profile | Help | Logout (jon301662)

Actions more

- Create Item...
- View Item
- Edit Item...
- Copy Item...
- Create Related Item...
- Add Related Item...
- Print Item
- Refresh Item
- View Related Items...
- Run Item Report...
- Re-Run Query
- Create Query...
- Copy Query...
- Delete Query...
- Edit Query...

Items View [Request For Change]

( 29 of 183 )

Query Request For Change

Request For Change: 22396

Created by [Ray Via \(ray.via\)](#) on [Mar 28, 2011 12:19:10 PM](#)

Modified by [Ray Via \(ray.via\)](#) on [Sep 1, 2011 1:37:42 PM](#)

Overview Change Details **Impact** Risk Evaluation Related Items Implementation Details Workflow History

Upgrade IOS to 15.0(1)M5 Pilot

Impacted Organizations	Impacted Subcontractors	Impact Type	Funded Task
AT&T Tier 3 O&M	<a href="#">AT&amp;T</a>	Hardware/Software	Verify

Impact Description

New IOS will be placed on listed routers.

Impacts Software

ID	Type	Software Type	Version
<a href="#">6120</a>	Software	Router	15.0(1)M1

Impacts Documents

ID	Document Type	Type	Number
<a href="#">23646</a>	SCP	Document	SCP094

Cost Impact

Local intranet 105%

A link to a software record

# Training

- Administrator training – 2 weeks

Stood up the following types (forms):

- Sites (site / hardware information)
- Program Trouble Reports (bug tracking)
- Request for Change (RFC tracking)
- Hardware (links to Sites)

Several more types were created and original type “tweaked” as more users began getting acclimated to the new tool

New types were:

- Release Requests
- Document
- Lease, etc

# Training – cont'd

- Small groups
- One-on-one
- Specific training slides developed per application

A lot of one-on-one training still goes on today for new hires and for those who simply “forget.”

# MKS Integration – Getting data in

- Data Imports
  - Imported information from Excel files to create initial records.
- Manual Entry

# MKS Integration

- Hardware Platform: (Dell PowerEdge R610s)
  - Virtual machine Development server
  - Production servers: 2 physical servers, one is the MS SQL DB Server and the other machine has the MKS Server product running.
  - OS: MS Windows 64-bit 2008 R2 Server.



# Asset Information in MKS

Items View [Sites] - Windows Internet Explorer provided by ITT Corporation - AES

http://01hrmks09-1:7001/lm;jsessionid=5D47447B686CDFD6949E4DA6D5B09CD77mks\_tz\_shift\_winter=1300032000000&mks\_tz\_shift\_summer=132059E

Items View [Sites] Create Field Action go to item search all items

Query Sites

Show items containing: SV028 where

Segment	Site ID	Name	Alternate Names	Generator Type	Cabinet Type	Radio Type	Radar Blanking	Tower Light	Date of Last PM	State	Address is	Site Modifications Complete
One	SV028-01	Trenton NJ Airport	Trenton Mercer	Propane	Outdoor 261	Thales MCR	Batwing + 1030 Card	true	Mar 16, 2011	In Service		Propane ATS Generator In
One	SV028-02	West Chester		Propane	Outdoor 261	Thales MCR	Batwing + 1030 Card	false	Mar 9, 2011	In Service	3640	Propane ATS Generator In
One	SV028-03	Carmel		Propane	Outdoor 261	Thales MCR	Batwing + 1030 Card		Mar 10, 2011	In Service	6260	Propane ATS Generator In

Site: 3  
Created by MKS Admin Default (mksadmin) on Jun 29, 2010 6:57:40 AM  
Modified by charles.gottenkieny on Jun 20, 2011 2:06:20 PM

Overview Site Services O&M Network Assets Drawings, Photos, Documents Etc. Schedule Construction Status Lease Checkout & Test Workflow History

SV028-01  
As Designed Site BOM Spec  
Has Assets

ID	Noun	Qualifier	Equipment Description FVA	Asset Tag	Serial Number	Tracked By	Number	Type	Old Item Master
8505			(1652-48-120-60-U)(012-H100269-01) Wilmore DC/AC Inverter	1201230				Hardware	
8501			(1652-48-120-60-U)(012-H100269-01) Wilmore DC/AC Inverter	1201231				Hardware	
8452			(Q4820N-19DB01)(185-H100270-01) Valere Power Shelf; 48VDC	1201234				Hardware	
8071			(012-H100261 (818JF))(290-H100261-06) Assembly; Radio Cabinet; Exterior	1201267				Hardware	
8671			(MONOPOLE) ITT Owned Monopole Tower	1216060				Hardware	
8417			(MCR)(098802-002) Thales Gen 2 Radio; Multi-Channel; Level 0; Virtual Order Item, Primary Ass	1216615	6			Hardware	
8093			(283175-0002)(012-H100265-01) Thales Gen 2 Radio TX Shelf (TXM) Transmitter LRU; BOM Level	1216616	13			Hardware	
8180			(283176-0002)(012-H100263-01) Thales Gen 2 Quad Radio RX Shelf (RXM) Receiver LRU Assembl	1216617	8			Hardware	
8346			USE 16182 (448166-0003)(012-H100264-01) Thales Gen 2 Radio Antenna Switch (ASU) LRU; BO	1216618	08B390005PCS01			Hardware	
8389			(129C01-0018)(012-H100266-01) Thales Gen 2 Radio Master Control Processor (MCP) LRU; BOM	1216619	ACBA001700			Hardware	
8094			(283175-0002)(012-H100265-01) Thales Gen 2 Radio TX Shelf (TXM) Transmitter LRU; BOM Level	1216620	14			Hardware	
8416			(MCR)(098802-002) Thales Gen 2 Radio; Multi-Channel; Level 0; Virtual Order Item, Primary Ass	1216621	7			Hardware	
8181			(283176-0002)(012-H100263-01) Thales Gen 2 Quad Radio RX Shelf (RXM) Receiver LRU Assembl	1216622	9			Hardware	
8347			USE 16182 (448166-0003)(012-H100264-01) Thales Gen 2 Radio Antenna Switch (ASU) LRU; BO	1216623	08-050-08 PCS01			Hardware	
8390			(129C01-0018)(012-H100266-01) Thales Gen 2 Radio Master Control Processor (MCP) LRU; BOM	1216624	AC91000750			Hardware	

40 more >>

Local intranet 100%



# MKS Reporting

CS - VCS Deployed Software Report - Windows Internet Explorer provided by ITT Corporation - AES

http://01hrnmks09-1:7001/im;jsessionid=B66947ED53625C8D1825B1A6F395CBEB?mks.commandRunner=6602

File Edit View Favorites Tools Help

McAfee

CS - VCS Deployed Software Report

CS - VCS Deployed Software Report

Aug 8, 2011

Summary	Name	Site ID	Hosted By FVA	State
	CM Repository	CM SVN/Vulcan		In Service
<b>Deployed SW:</b>				
	<b>Software Type</b>	<b>Version</b>		
	Scripts	1.0.02.003		
	CS-1 Ashburn	CS1 ESA		In Service
<b>Deployed SW:</b>				
	<b>Software Type</b>	<b>Version</b>		
	DSNA App	1.0.01.003		
	FIS-B App	1.0.00.003		
	FIS-B Config	cs1_fisb_1.0.00.008		
	DLR App	1.0.01.000		
	DLR Config	cs1_dlr_1.0.01.000		
	VAS	0.9.4		
	CS-2 Allen	CS2 CSA		In Service
<b>Deployed SW:</b>				

Done Local intranet 105%



# Process Workflow



# One of the MKS Workflows – Request for Change

