



ORANGE COUNTY ASSESSOR DEPARTMENT

# ATS Re-Engineering

**Board of Supervisors Update #6**

October 6, 2009

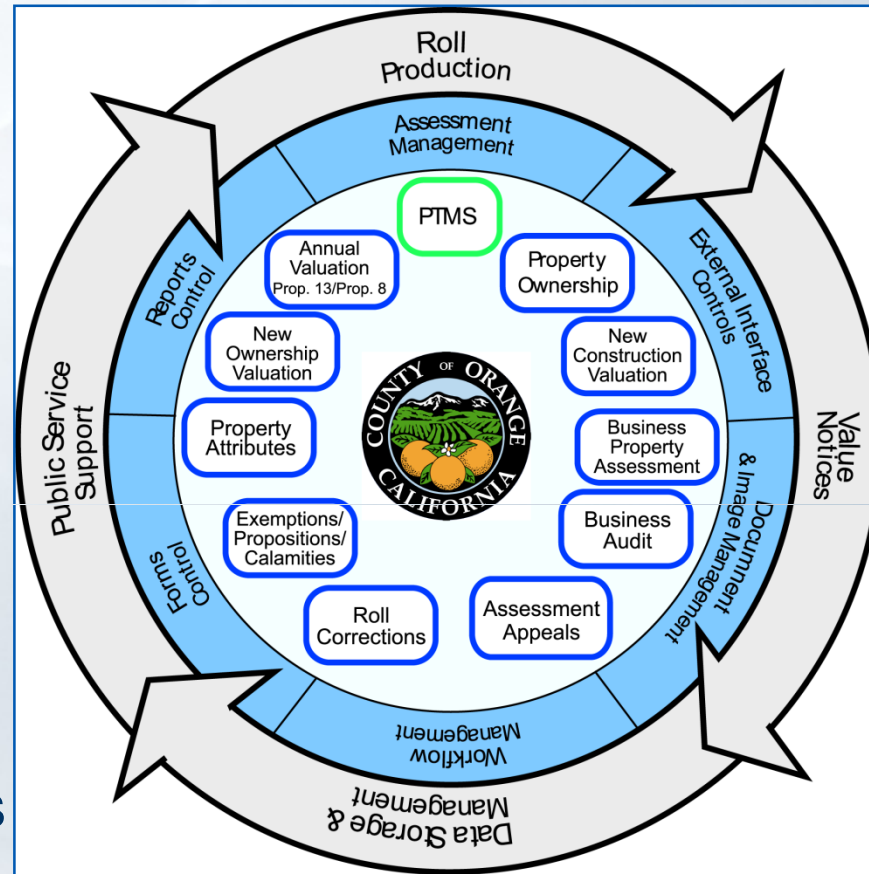
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# The ATS And Re-Engineering

Compliance  
With State  
Laws

897,000  
Real Estate  
Parcels

168,000  
Unsecured  
Assessments



Valuation &  
Assessment  
Functions

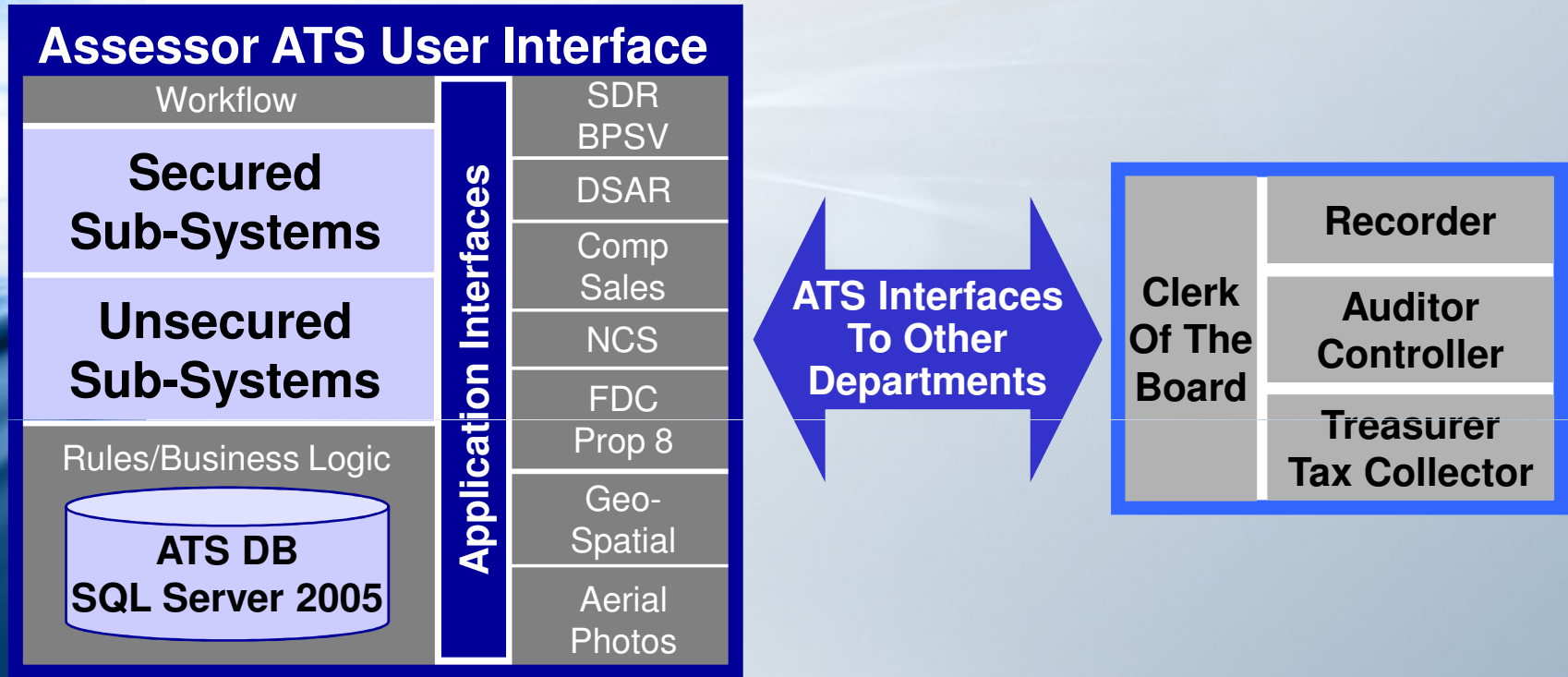
\$419 Billion  
Assessed  
Value

492,000  
Exemptions

Declines in  
Value

- Brings ATS up to today's technology
- Business logic established over 22+ years

# Assessment System Re-Engineering



The current ATS went into production in 1987 (22 years ago). The system development and hardware costs were approximately \$12 Million.

# ATS Project Overview and Update

- Unsecured Property Systems

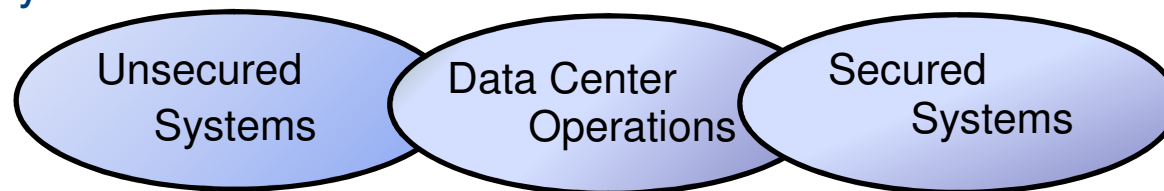
Released July 6, 2009

This part of the system is now functional in the near-production environment for user and system final testing. A major release design review was conducted for all county stakeholders on August 27, 2009.

- Secured Property Systems

Release Planned for July 2010

The pace of work for part two of the ATS Re-Engineering related to Secured Property Systems has been increasing as we move resources to this effort since July 2009. The Secured Systems development is moving ahead on schedule for a July/August 2010 deployment.



# ATS Re-Engineering Risk Mitigation

Most of the Project Risks are contained.

- There are no significant unknown programming related items.
- The Platform risks are minimized because we are using proven and mature technologies for both software and hardware.
  - Re-Engineering is an existing functional system (22+ years) for its business logics and legal requirements.
  - Users are involved daily in software and proof of concept throughout the development cycle – No Surprises for users.
  - Key project members are familiar with Assessor business and have been working with ATS users for many years.

# ATS Re-Engineering Risk Mitigation

- Design/Build process uses storyboards and prototyping with weekly/monthly design reviews to meet the schedule and for cost containment.
- System Acceptance and Acceptance Testing goes through a 100% user production testing and feedback loop.
- Current systems are fully operational during development, for roll production and to support the PTMS interfaces.
- In 2010 the entire new ATS platform, software and hardware, gets a benchmark full-file and network stress test against the current ATS.
- Every part of systems, development through deployment, programming, hardware, networks, security, architecture, cost and schedule is monitored and managed through a central point.

# ATS Re-Engineering Risk Mitigation

## Top 5 Risks to the Project

### ● Financing

- Source of funding/financing (CEO Office pursuing financing)

### ● Knowledge Base & Availability of Resources

- Retirement of long-term key staff (impacts testing)
- Availability of User and Support resources (FY 2009-10 budget reductions)

### ● New Production Environment at the Data Center

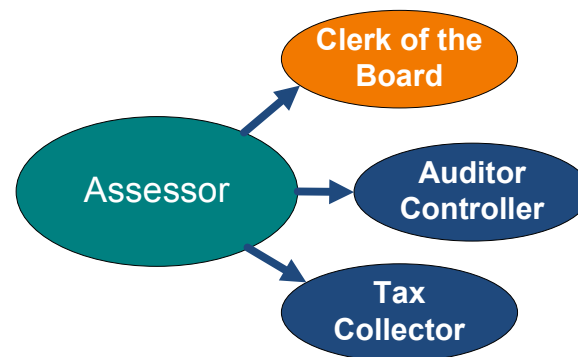
- Testing (ongoing and continuing through 2010)
- Data Center Open Systems Operations and Maintenance Environment (near production milestones for July/August 2009 and 2010) policy/procedures development underway

# ATS Re-Engineering Risk Mitigation

## Top 5 Risks to the Project (cont'd)

- **PTMS software development and interface schedule (interface approach developed, architectural definition ongoing)**
  - Clerk of the Board Interface (estimated Nov 2009)
  - Auditor-Controller Interface (estimated Sept 2010)
  - Tax Collector Interface (estimated Sept 2010)

## PTMS Interface Hardware and Network Architecture



# ATS Re-Engineering Risk Mitigation

## Top 5 Risks to the Project (cont'd)

- **Impact of the Work Needed to Accommodate a “Negative CPI” for Valuation and Roll Production**
  - Negative CPI will need to be addressed in both the current Mainframe ATS and the new ATS.
- **Resource required for “Negative CPI” work will impact the ATS and PTMS projects. Some of the same key programmers are required on both systems to maintain schedules, and upsetting the schedule has a cost impact.**
  - Scope of this item and potential impacts are being defined now.

# Accomplishments (since May '09)

## Unsecured Sub-Systems Development

- The new **ATS Unsecured Sub-System** was installed to “Near Production” on *July 6, 2009*.
- A total of **26 modules** were released in this deployment on schedule. These modules make up the baseline functionality for processing, audit and enrollment of the Unsecured Roll products.

*Appeals*

*Arbitrary Assessment*

*Audit*

*BP Canvass*

*BP Regeneration*

*BP Workflow*

*BPS Receiving*

*BPS Update*

*BPS Valuation*

*Cable*

*Commercial Air*

*Document Image Viewer (DSAR)*

*Enrollment*

*Institutional Exemption*

*Lease Equipment*

*Lease Equipment Exemptions*

*Lease Equipment Referral*

*Marine and Air*

*Marine and Air Exemption*

*Marine and Air Workflow*

*Other Statements*

*Roll Correction*

*Security*

*Situs Control*

*Unsecured Remarks*

*User Interface*

- **Fixes and Adjustments** are in progress – *Ongoing through January 2010*

# **Accomplishments** (since May '09)

## **Unsecured Sub-System Development**

- **The new ATS Unsecured Sub-System was installed in the Test, Qualification, and Production regions on the new blade platform on July 6, 2009.**
- **The new ATS Unsecured application has been deployed to more than 80 Assessor Department users.**
- **Feedback from New ATS Unsecured users was gathered from July 6<sup>th</sup> through August 31<sup>st</sup> and prioritized. Updates for Appeals, Canvassing and general user requested adjustments were provided in a new release on September 8, 2009.**
- **Data refreshes for the new Unsecured environment are currently scheduled for every 6 weeks.**

# Accomplishments (since May '09)

## Secured Sub-System Development

- The first release of the Secured Sub-System was installed on July 6, 2009 for user review and testing. The release included the following modules:

*Mapping (cuts & combos)    Homeowner Exemptions    Ownership*  
*Secured Security            Secured User Interface            Secured Workflow*

- Four major Secured Sub-System releases are scheduled throughout 2009/10 and deployment to near production will be in July/August 2010
- Developing functional requirements for Comparable Sales, Valuation, and New Construction (NCS) modules - Ongoing
- Starting July 14, 2009 the Department has conducted (16) user workshops for the new ATS Secured Mapping and Ownership modules
- The development of the Secured Sub-System is on schedule and the Department must increase some key resources over the next 10 months to maintain the schedule.

# Accomplishments (since May '09)

## ATS Infrastructure

- **Security - Built the User Profiles and access parameters to support the new ATS security modules for Unsecured released on July 6, 2009. Secured User Profiles are in progress and will be incorporated through July 2010.**
- **Operations Support - Developed Batch Job Scheduling User Interface (UI) for Assessor Department Computer Systems staff on July 28, 2009 - The UI is in review through November 2009.**
- **New ATS Production Platform (Blade Server)**
  - **In collaboration with CEO-IT staff, developed a draft network architecture that supports ATS functional requirements and can be certified for security by CEO-IT. The network architecture will be tested and tuned as required through December 2009**
  - **Performed stress test for the new ATS to determine if the hardware and network would support the new requirements. The platform proved to be sound but additional memory was required and has been installed as part of the July 6, 2009 deployment of Unsecured.**

# Accomplishments (since May '09)

## ATS Infrastructure

- **New ATS Production Platform (Blade Server)**
  - In collaboration with CEO-IT staff and BMC (the Control-M Vendor), developing batch job scheduling functionality – Ongoing through December 2009
  - In collaboration with CEO-IT staff, testing high volume print functionality – continuing through June 2010
  - Prepared draft requirements for County Data Center support – Currently in update and review – Ongoing as needed through July 2010

*Backup/Restore*

*Job Scheduling*

*Service Desk*

*Software Migration (Release Management)*

*Monitoring (CPU, Capacity, Network Performance)*

# Accomplishments (since May '09)

## ATS – PTMS Interface

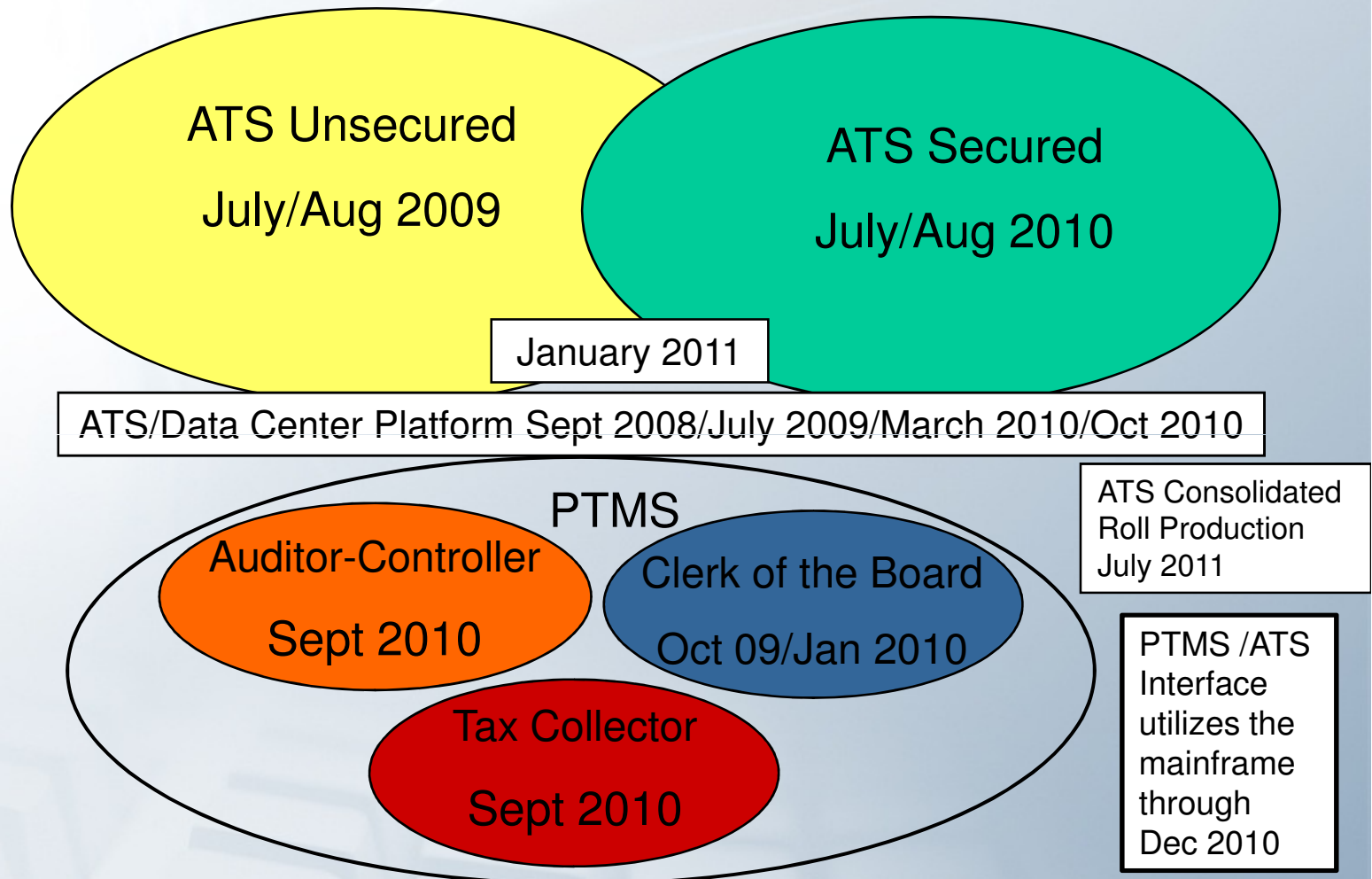
- The mainframe will house the ATS database of record until the Secured Sub-System has been deployed July/August 2010. The period of development prior to the Secured deployment is considered Near Production, and the final new ATS is considered the Production configuration.
- The proposed approach and architecture for the ATS–PTMS interface, both Near Production and Production configurations, was developed and reported February 9, 2009 and is under ongoing review and refinement.
- Defined the data elements required for data exchange between the Assessor and the Auditor-Controller, Clerk of the Board, and Treasurer-Tax Collector. Four (4) proposed new data elements have been reviewed by the Assessor and are now being included in the ongoing interface planning.
- CEO-IT has provisioned a new mainframe region (LPAR) for testing the interface between the new ATS platform and the mainframe to accommodate the interim ATS–PTMS interface – Currently in testing, ongoing through December 2009.

# Accomplishments (since Jan '09)

## ATS – PTMS Interface

- **The Assessor Department is working with the COB on the new PTMS/COB Appeals module; meetings are ongoing. The Assessor responded to some COB inquiries with feedback on July 22. Some elements of the feedback include questions on the following:**
  - **How to handle Appeals data that can be received by both the Assessor and the Clerk of the Board?**
  - **How will data be exchanged and tracked on one system (Assessor or COB) when entered into the other?**
  - **How will document scanning and indexing be handled if the COB migrates to OnBase at the County Data Center?**

# ATS Deployment and PTMS Interface Planning Overview



\*All dates are estimates based on planning updated as of September 2009 and include progress updates through July 2009. Dates can and will adjust to accommodate annual and supplemental roll schedules, Assessor workloads and support resource availability between now and January 2011.

# ATS Re-Engineering Schedule As of July 6, 2009

**Legend:** ■ On Schedule ■ Late ■ Impact

The table below shows some of the key checklist considerations for ATS migration to the new platform. The items are selected from the ATS Re-Engineering project checklists and categorized as **Database Migration**, **Software Migration** (*System Functionality*), **Infrastructure and Operations** (*Hardware, Network and Procedures*).

Database Migration	Software Migration	Infrastructure and Operations
<b>05/11/09</b> – Database Conversion and Verification Metrics	<b>05/15/09</b> – Final Test Release of Unsecured ( <b>06/15/09</b> )*	<b>04/30/09</b> - Draft ATS System Backup Procedures
<b>06/26/09</b> – Final Database Migration Test	<b>05/30/09</b> – Conclude User Acceptance Testing ( <b>06/30/09</b> )*	<b>06/01/09</b> – Conclude Load and Performance Testing
<b>07/02/09</b> – Freeze Database Migration Scripts	<b>06/08/09</b> – Cross Functional Pilot Migration	<b>06/08/09</b> - Submit RFC for Initial Deployment
<b>07/03/09</b> – Backup ATS Production Database	<b>06/30/09</b> – Unsecured Code Freeze	<b>06/16/09</b> – Service Desk Training and Registration
<b>07/05/09</b> – Conduct Database Migration to New ATS Platform (Major Milestone)	<b>07/06/09</b> – Unsecured ATS Deployed (Major Milestone)	<b>07/05/09</b> – Pre-Deployment Preparations

\*Final test version of Unsecured re-release date to include additional Database clean up

# ATS Re-Engineering Schedule As of October 1, 2009

**Legend:** ■ On Schedule ■ Late ■ Impact

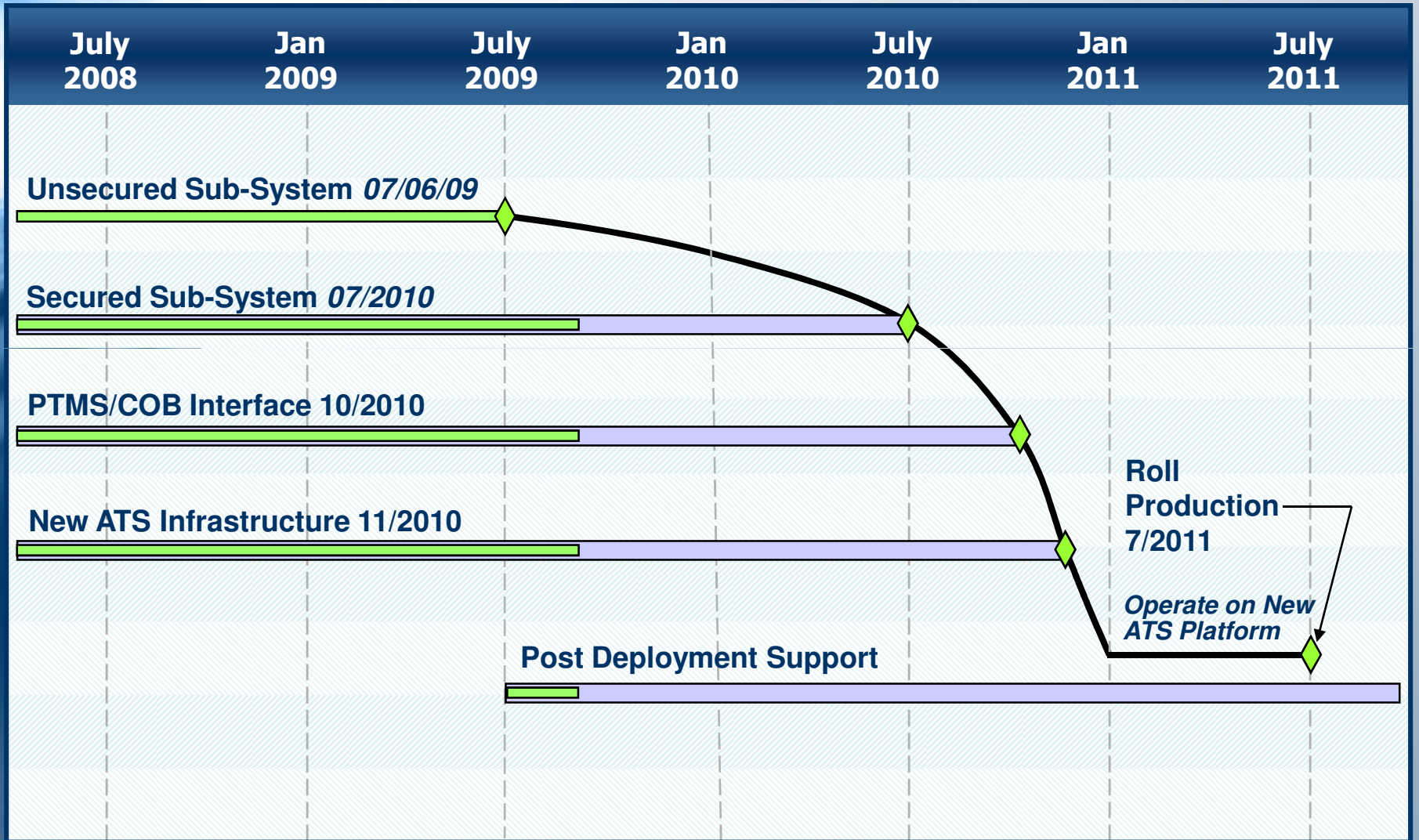
The table below shows some of the key checklist considerations for ATS migration to the new platform. The items are selected from the ATS Re-Engineering project checklists and categorized as **Database Migration**, **Software Migration** (*System Functionality*), **Infrastructure and Operations** (*Hardware, Network and Procedures*).

Database Migration	Software Migration	Infrastructure and Operations
07/24/09 - Develop Conversion Schedule for Secured Database	08/16/09 - Major ATS Release of Secured Modules for Testing and Unsecured Enhancements	10/19/09 - Configure Application Servers to 32bit for Job Scheduling with CEO-IT
08/03/09 - Update and Test Conversion Scripts to include Secured Data	09/08/09 - Interim Release to Update Secured User Testing	11/02/09 - Define Comparable Sales Interface Requirements
08/09/09 - Convert Database for ATS Major Release ( <i>scheduled 08/16/09</i> )	09/29/09 - Major ATS Release of Secured Modules for Testing and Unsecured Enhancements	11/02/09 - Define Geo-Spatial Interface Requirements
09/13/09 - Convert Database for ATS Major Release ( <i>scheduled 09/29/09</i> )	10/20/09 - Interim Release to Update Secured User Testing	12/01/09 - Application Stress Testing to Establish System Performance Baseline
10/25/09 - Convert Database for ATS Major Release ( <i>scheduled 11/10/09</i> )	11/10/09 - Major ATS Release of Secured Modules for Testing and Unsecured Enhancements	12/01/09 - Application Stress Testing to Establish System Performance Baseline
12/06/09 - Convert Database for ATS Major Release ( <i>scheduled 12/22/09</i> )	12/01/09 - Interim Release to Update Secured User Testing	12/01/09 - Test Control-M Job Scheduling Software with CEO-IT
TBD - Incorporate Data Element to Support PTMS Interface	12/22/09 - Major ATS Release of Secured Modules for Testing and Unsecured Enhancements	TBD - Test ATS - PTMS Interface Architecture with CEO-IT

# ATS Re-Engineering Schedule As of September 1, 2009

**Legend:** ■ On Schedule ■ Late ■ Impact

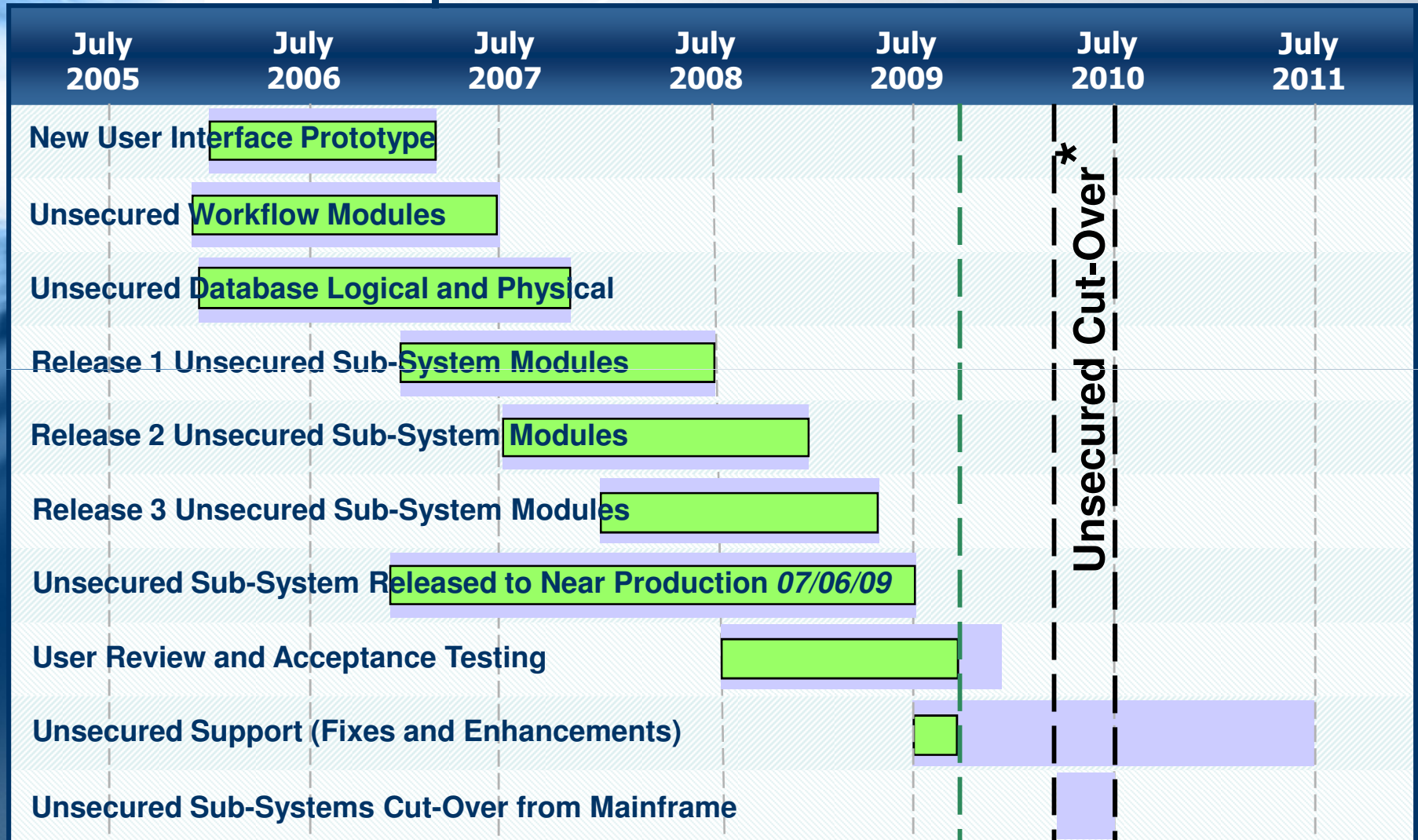
## Project Implementation Timeline Summary



# ATS Re-Engineering Schedule As of September 1, 2009

Legend: ■ On Schedule ■ Late ■ Impact

## Software Development Timeline Overview for Unsecured

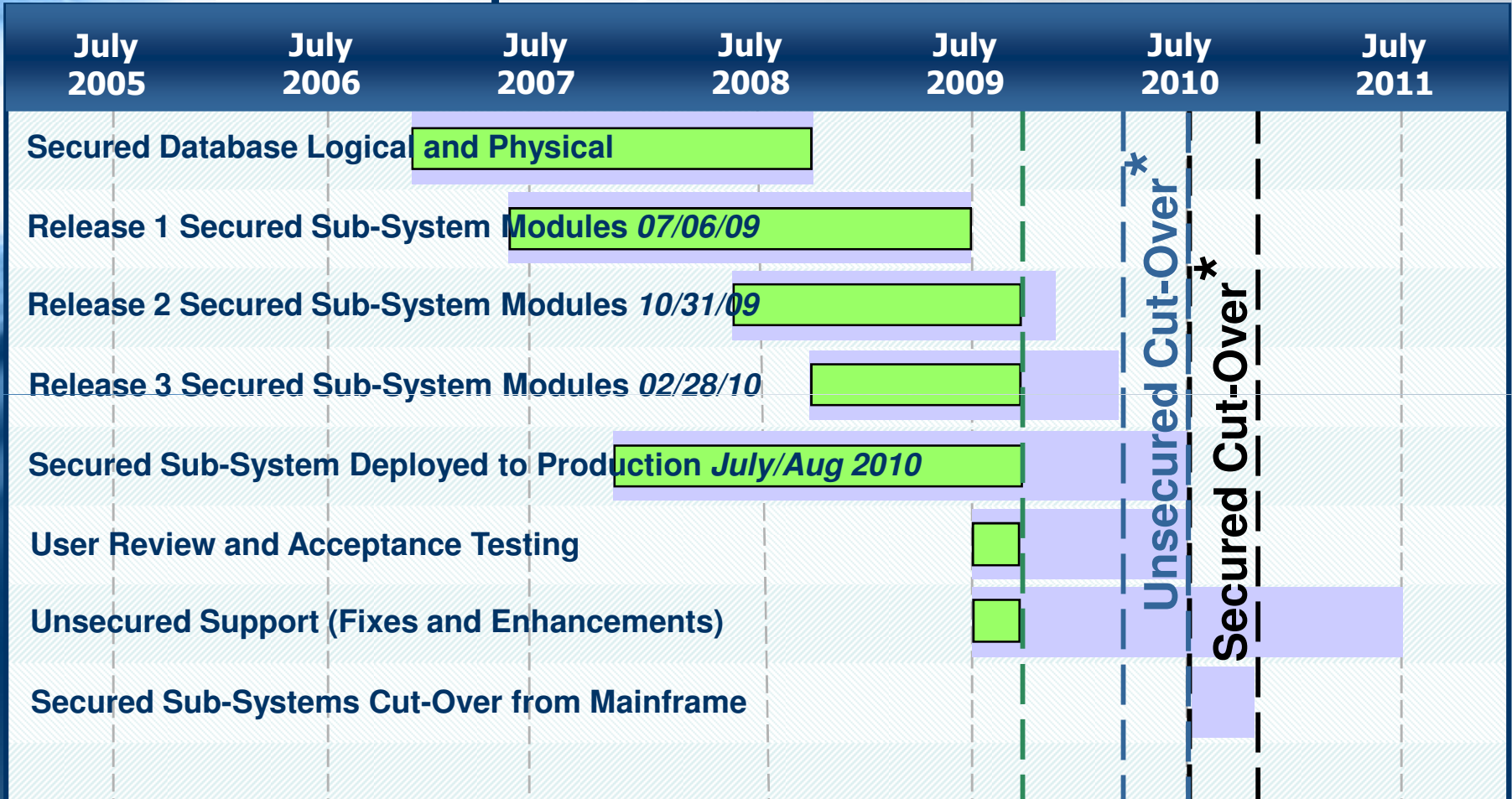


\*Unsecured Cut-Over = Unsecured was made production ready July 2009 and the Mainframe will continue to host the ATS database of record through the Secured deployment. The Roll, Unsecured and Secured, will be produced from the Mainframe through July 2010.

# ATS Re-Engineering Schedule As of September 1, 2009

**Legend:** ■ On Schedule ■ Late ■ Impact

## Software Development Timeline Overview for Secured

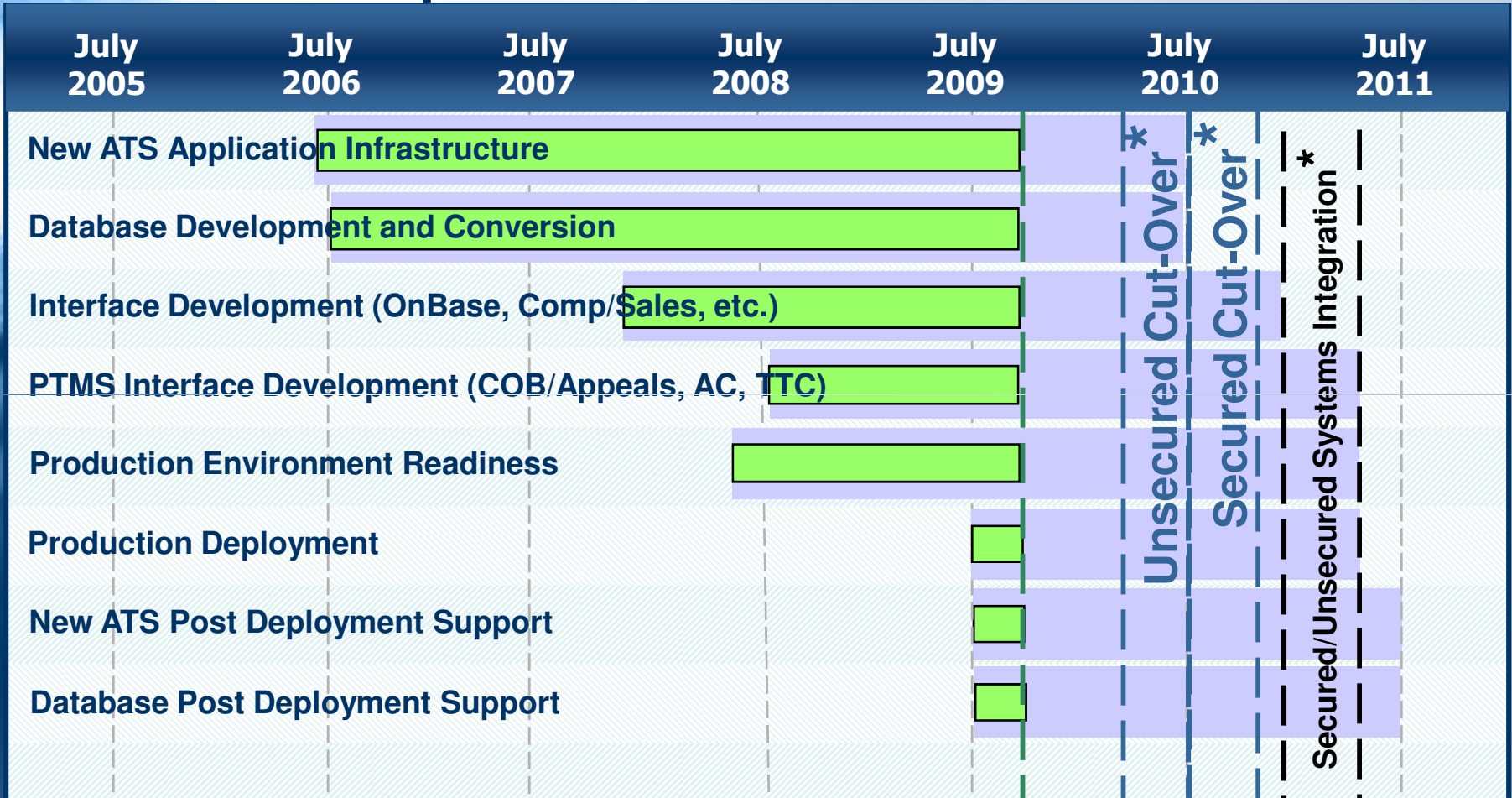


\*Secured Cut-Over = Secured Systems will be production ready and interfaced with Unsecured Systems and the Rolls will be produced from the new ATS platform in July 2011.

# ATS Re-Engineering Schedule As of September 1, 2009

**Legend:** ■ On Schedule ■ Late ■ Impact

## Software Development Timeline Overview for Infrastructure



\*Secured/Unsecured Systems Integration = The integration between Secured and Unsecured will be stably sufficient to produce the Rolls in July 2011.

# ATS Re-Engineering Project Estimate Update

## As of September 2009

- New project cost estimates are being provided with this October 2009 report.
- Last project cost estimate was January 2008.
- The ATS-PTMS interface requirements are much better defined now.
- The need to be prepared to address a “Negative CPI” in the current mainframe ATS and the new ATS Secured Sub-systems
- New requirements from the State – for example: many changes to the state controlled forms
- The level of effort for Data Center and post-deployment support are better defined for this Sept 2009 estimate.
- The deployment of Unsecured Sub-systems in July 2009 provides a more accurate foundation to update the programming hours for the remaining work to complete the Secured Sub-systems.
- The IV & V review and report was completed August 2009 and cost about \$110,000.
- This cost and schedule update (Sept 2009) is consistent with the methodology for cost estimating as reviewed by the IV & V consultants; considers new items, improved details, and is up to date for estimating schedule and costs for the remaining programming, testing and moving the new systems to production.

# ATS Re-Engineering Project Estimate Update

As of September 2009

- Funding from Fund 038 for FY 2009-10 increases from \$4.126 million to \$5.97 (\$6.0) million (+\$1.85 million) – increasing the pace of development to meet the July 2010 schedule
- Funding from Fund 038 for FY 2010-11 - no change: \$727,300 (\$730,000)
- No schedule change; the ATS project is on schedule for July 2011 to produce the 2011 annual rolls using the new ATS.
- Total updated project cost estimate is \$21.4 million. The overall programming and development hours are increased by approximately 10% (from 165,700 to 182,400 hours).

## Working Estimate Provided to Board January 2008

Fund 038 Estimate to Complete: \$6.0 Million

## Estimate Adjusted September 2009

Fund 038 Estimate to Complete: \$6.7 Million

# ATS Re-Engineering Project Budget

## Assessor Department (as of June 30, 2009)

ATS Re-Engineering Summary of Cost and Budget Estimate (\$ in Whole Numbers)

Category	Actuals FY 2004-08	Actuals FY 2008-09	Projected FY 2009-10	Projected FY 2010-11	Total
<b>Contract Programming Services</b> (002/127/038)	\$7,658,208	\$6,019,437	\$6,241,935	\$730,000	<b>\$20,649,580</b>
<b>Hardware/Software/ Training</b> (002/12P/038)	85,730	15,037	560,000		<b>660,767</b>
IV & V – Eclipse Solutions		79,360			<b>79,360</b>
<b>Total</b>	<b>\$7,743,938</b>	<b>\$6,113,834</b>	<b>\$6,801,935</b>	<b>\$730,000</b>	<b>\$21,389,707</b>
Contingency					
<b>Total Cost (Rounded)</b>					<b>\$21.4 Million</b>

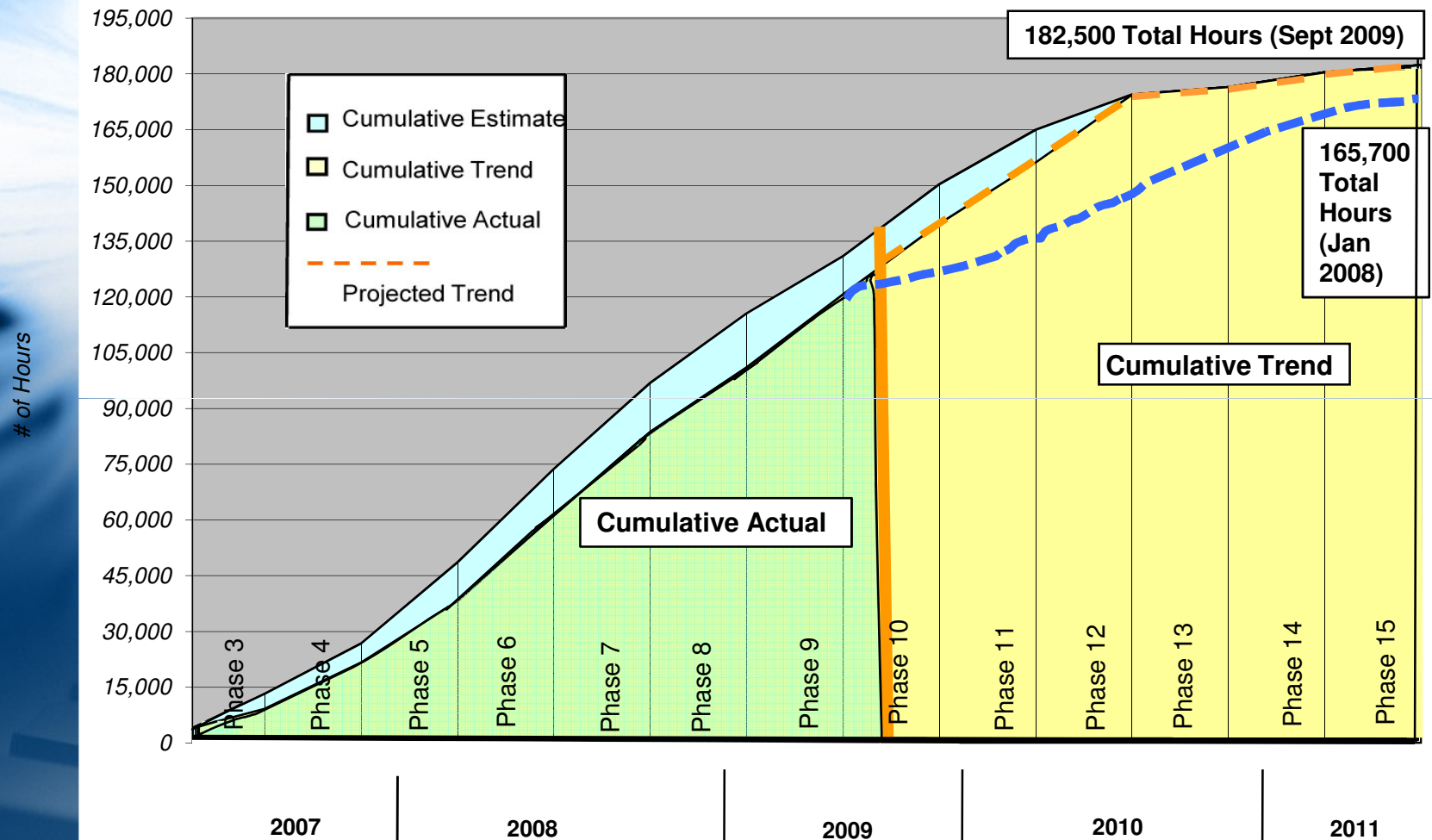
**Cumulative Expenditure to date**                      **\$13,857,772**

CEO Budget and Public Finance are working on financing for this project

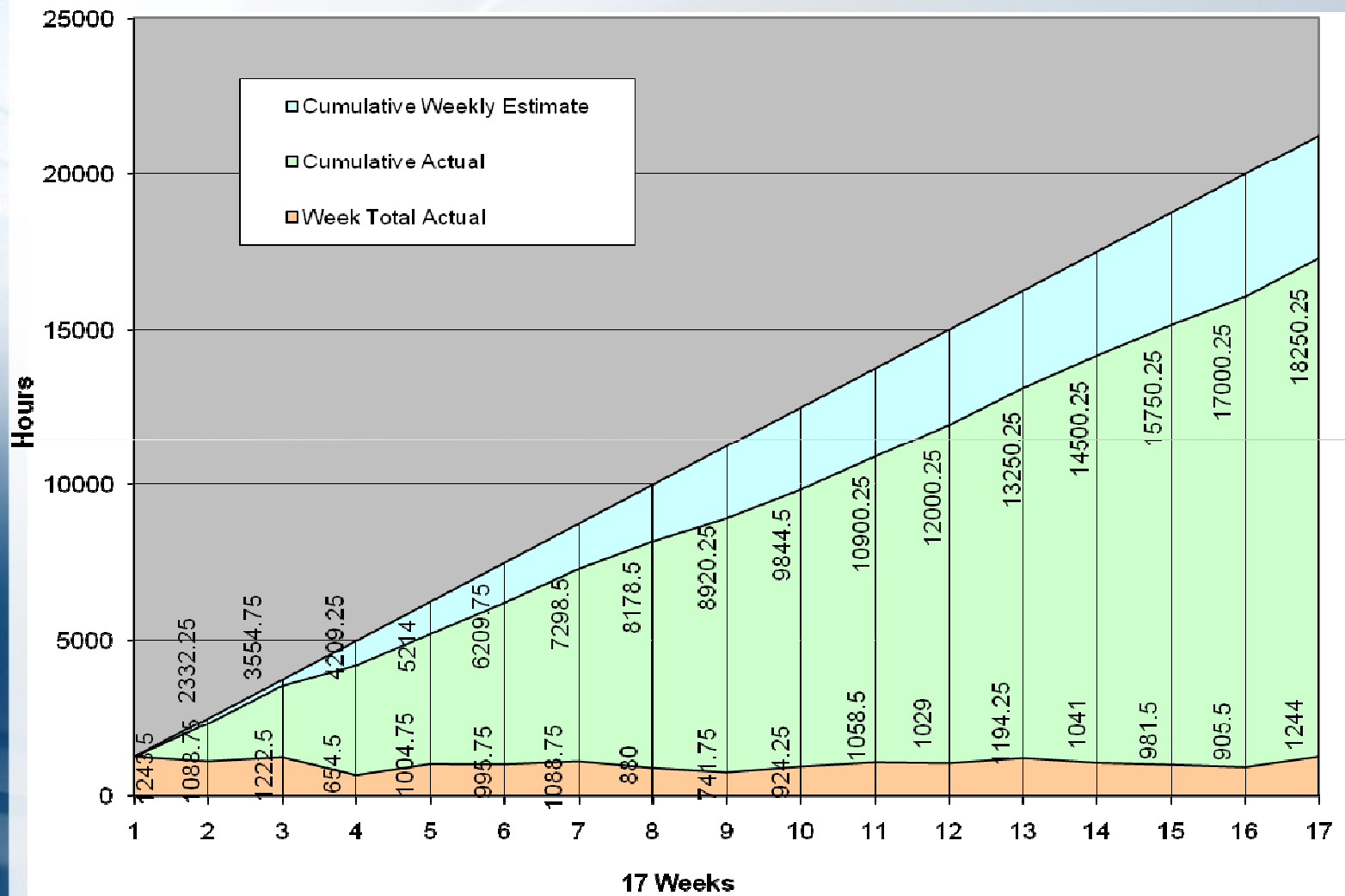
**\$6.7 Million from Fund 038  
to Complete**

**NOTE:** This projection does not include any undefined costs, internal or external, for unexpected events or new legal requirements.

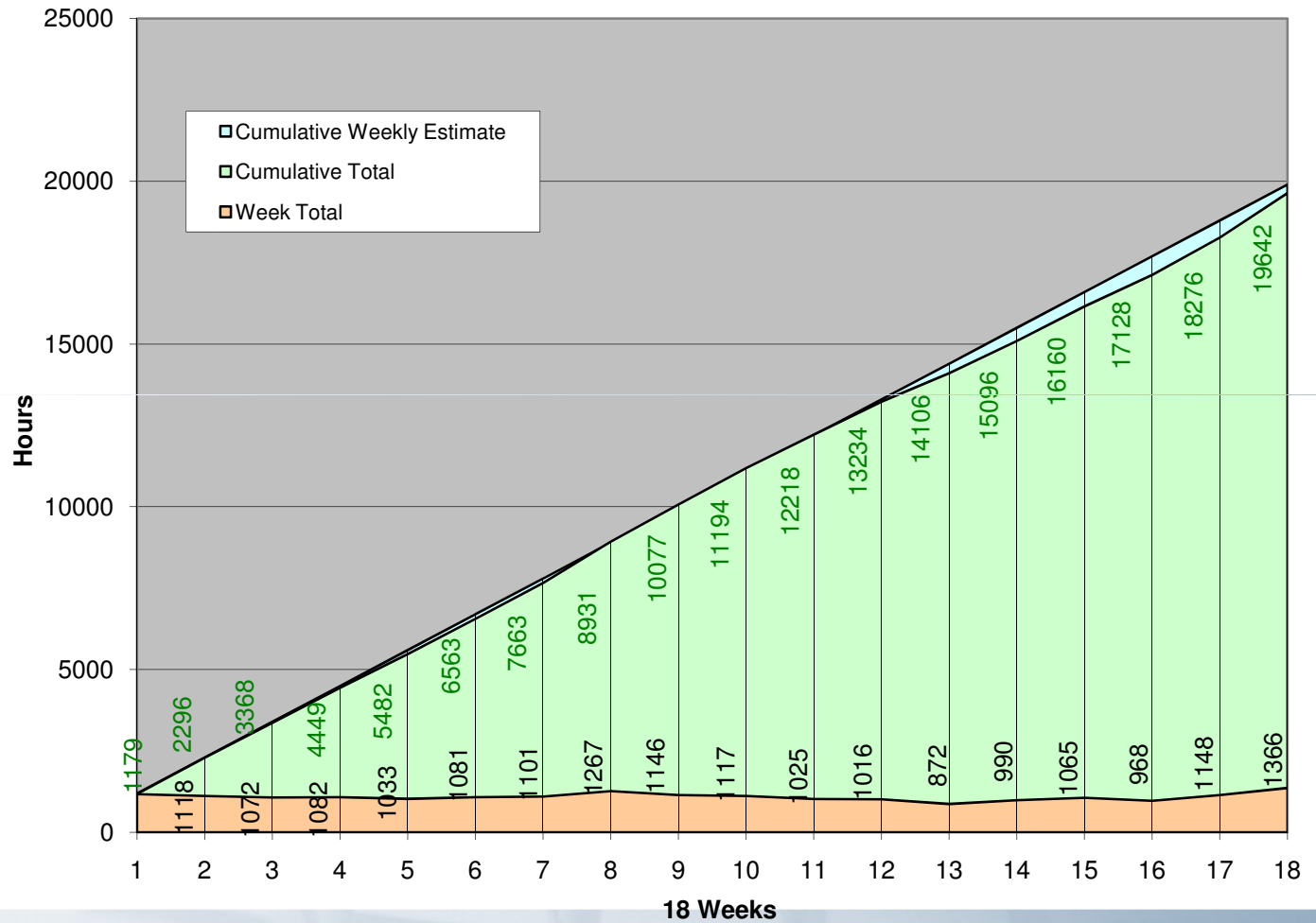
# ATS Development - Cumulative Work Hours Estimate vs. Actual



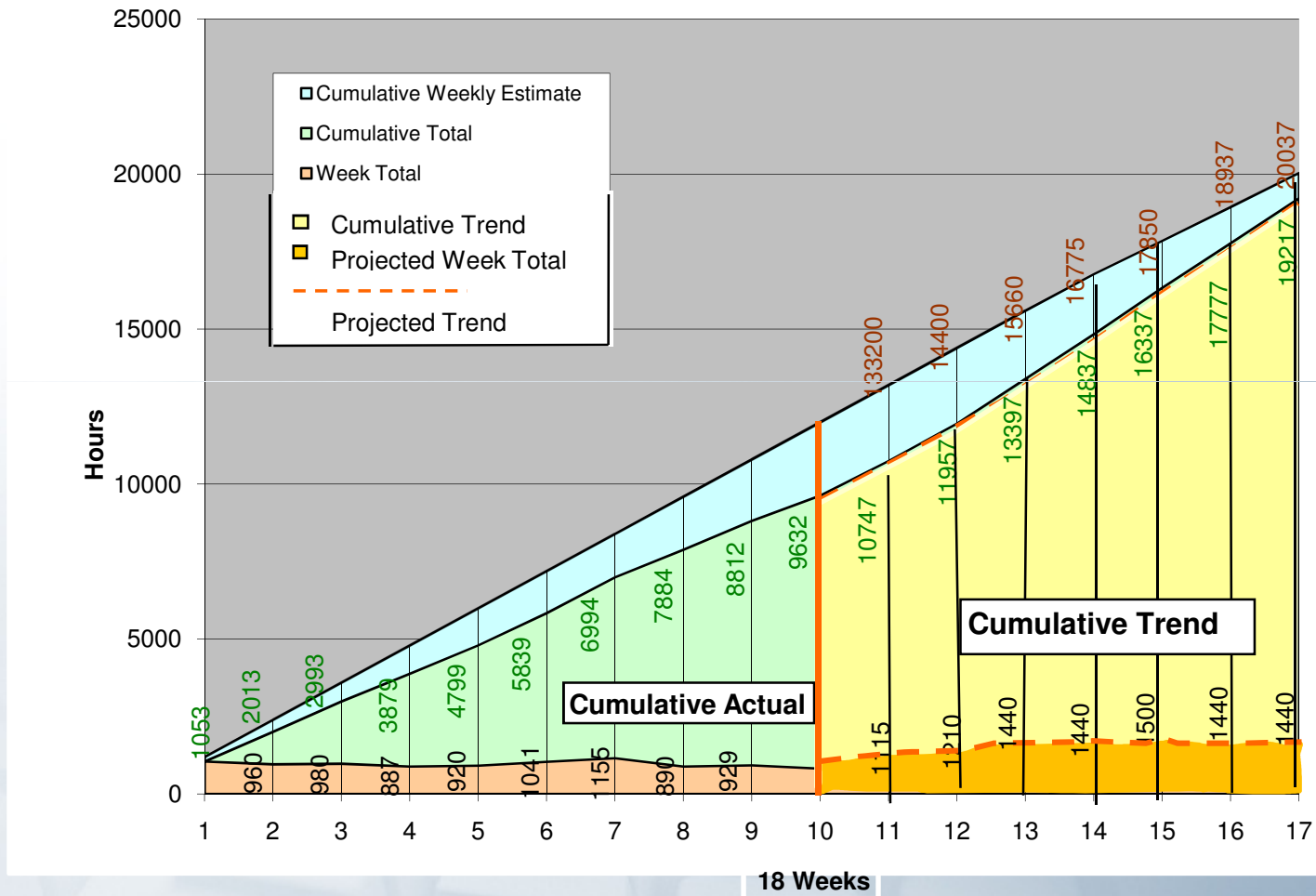
# Phase 8 – Estimated vs. Actual Development Hours (for 11/3/08 – 3/1/09)



# Phase 9 – Estimated vs. Actual Development Hours (for 3/2/09 – 7/5/09)



# Phase 10 – Estimated vs. Actual Development Hours (for 7/6/09 – 11/1/09)



# ATS Re-Engineering Reports

- **Quarterly status and progress reports to the Board of Supervisors:**
  - **January, 2010 (next update)**
  - **October 6, 2009**
  - **May 12, 2009**
  - **January 27, 2009**
  - **September 9, 2008**
  - **June 17, 2008**
  - **April 15, 2008**



# Next ATS Re-Engineering Updates

- **Next update will be in Jan 2010.**
- **The new Unsecured systems update for stress testing, data conversion, database and stored procedures assessments, user interface and Data Center related operations and maintenance; this process will continue through Dec 2009.**
- **The new Secured systems update will relate to accelerating development, schedule and cost update, progress on four major milestone releases during 2009/10, and cut-over in July/August 2010.**
- **The roll production transition from the old to new ATS will be ongoing from July 2010 through July 2011. The 2011 Roll will be produced using the new ATS.**

# ATS Re-Engineering Update

**Questions?**

# ATS Re-Engineering - Addendum

- **Addendum Package Includes:**
  - **ATS Re-Engineering Related Cost Estimate – Updated September, 2009 (2 pages)**
  - **Unsecured Sub-Systems Phased Development and Completion Phasing – Estimates as of July 6, 2009**
  - **Secured Sub-Systems Phased Development and Completion Phasing – Estimates as of July 6, 2009**
  - **Phase 6 – Estimated vs. Actual Development Hours (for 3/3/08 – 6/29/08)**
  - **Phase 7 – Estimated vs. Actual Development Hours (for 6/30/08 – 11/2/08)**



ORANGE COUNTY ASSESSOR DEPARTMENT

# ATS Re-Engineering

**Board of Supervisors Update #6**

**Addendum**

**October 6, 2009**

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ASSESSOR DEPARTMENT [DRAFT]																
ATS RE-ENGINEERING RELATED COST ESTIMATE - Updated September, 2009																
DEVELOPMENT & OPERATIONS RELATED COSTS FY 09-10 & 10-11																
Fiscal Year 2009-2010													FY 2010-2011			
	Phase 10			Phase 11			Phase 12			Total FY 09-10			Hours Est 1/08	Hours Est 9/09	Dollars 9/09	
	Hours Est 1/08	Hours Est 9/09	Dollars 9/09	Hours Est 1/08	Hours Est 9/09	Dollars 9/09	Hours Est 1/08	Hours Est 9/09	Dollars 9/09	Hours Est 1/08	Hours Est 9/09	Dollars 9/09				
<b>PROGRAMMING / DESIGN SERVICES</b>																
SECURED - MODULE DEVELOPMENT <sup>1</sup>	6,288	6,288		5,970	5,970		3,600	3,600		15,858	15,858		0	0		
SECURED DEVELOPMENT BUSINESS ANALYSIS & ADMIN SUPPORT <sup>2</sup>	3,360	3,740		3,060	3,740		3,060	3,740		9,480	11,220		0	0		
INFRASTRUCTURE - SECURED, UNSECURED, PTMS INTERFACE <sup>3</sup>	3,620	6,490		3,101	6,120		3,140	4,750		9,861	17,360		0	0		
INTERFACES - SECURED & UNSECURED, PTMS <sup>4</sup>	0	500		600	1,200		700	1,100		1,300	2,800		0	0		
PRODUCTION DEPLOYMENT <sup>5</sup>	0	0		400	400		400	700		800	1,100		0	400		
POST DEPLOYMENT SUPPORT - SECURED & UNSECURED <sup>6</sup>	0	3,019		100	2,500		440	1,900		540	7,419		6,800	5,000		
<b>TOTAL FOR ATS PROGRAMMING / DESIGN SERVICES</b>	<b>13,268</b>	<b>20,037</b>		<b>13,231</b>	<b>19,930</b>		<b>11,340</b>	<b>15,790</b>		<b>37,839</b>	<b>55,757</b>		<b>6,800</b>	<b>5,400</b>		
<b>Total Variance - Programming/Design Services Hours</b>		<b>6,769</b>			<b>6,699</b>			<b>4,450</b>			<b>17,918</b>			<b>-1,400</b>		
<b>DATABASE CONVERSION &amp; SUPPORT <sup>7</sup></b>																
DATABASE CONVERSION & SUPPORT - ARK		1,480	118,015		1,367	109,005		1,448	115,464		0	4,295	342,484		1,808	144,170
DATABASE & APPLICATION SUPPORT (Modern eConcepts)		100	7,818		100	7,818		100	7,818		0	300	23,454		200	15,636
<b>TOTAL DATABASE CONVERSION &amp; SUPPORT</b>		<b>1,580</b>	<b>125,833</b>		<b>1,467</b>	<b>116,823</b>		<b>1,548</b>	<b>123,282</b>		<b>0</b>	<b>4,595</b>	<b>365,938</b>		<b>2,008</b>	<b>159,806</b>
<b>SYSTEM COSTS</b>																
Hardware Purchases (Blade Upgrades)									250,000		0	0	250,000			
Hardware Purchases (General System & Peripherals Upgrades)			10,000			10,000			10,000		0	0	30,000			20,000
Software License Maintenance									18,000		0	0	18,000			18,000
<b>TOTAL SYSTEM COSTS</b>		<b>0</b>	<b>10,000</b>		<b>0</b>	<b>10,000</b>		<b>0</b>	<b>278,000</b>		<b>0</b>	<b>0</b>	<b>298,000</b>		<b>0</b>	<b>38,000</b>
<b>CEO-IT &amp; DATA CENTER SUPPORT <sup>8</sup></b>																
		Units		Units		Units		Units		Units		Units		Units		Units
Server Maintenance - per server		62.0	40,128		62.0	40,128		62.0	40,128		0.0	186.0	120,384		186.0	120,383
Disk Storage (SAN) - per gigabyte		18,000	61,380		18,000	61,380		18,000	61,380		0	54,000	184,140		54,000	184,140
Subtotal			101,508			101,508			101,508				304,524			304,523
New Platform Installation - per hour											0	0	0		250	22,490
Project Management - per hour		233	24,195		233	24,195		234	24,299		0	700	72,689		700	72,688
Application Support (Release Management) - per hour		280	30,800		280	30,800		280	30,800		0	840	92,400		840	92,400
Application Support (Database Support) - per hour		166	19,522		167	19,639		167	19,639		0	500	58,800		500	58,800
<b>TOTAL CEO-IT &amp; DATA CENTER SUPPORT</b>			<b>176,025</b>			<b>176,142</b>			<b>176,246</b>				<b>528,413</b>			<b>550,901</b>
<b>COMPARABLE SALES APP - REWRITE/INTERFACE</b>																
													60,000			

ASSESSOR DEPARTMENT [DRAFT]													
ATS RE-ENGINEERING RELATED COST ESTIMATE - Updated September, 2009													
DEVELOPMENT & OPERATIONS RELATED COSTS FY 09-10 & 10-11													
<b>Notes for Programming &amp; Design Service Hours</b>													
<b>1 Secured – Module Development</b>													
This is for the programmers to write and document the code for the 24 modules that comprise the core business functions required for Secured Roll Processing, including unit testing of each routine written against the functional requirements.													
<b>2 Secured Development Business Analysis and Administrative Support</b>													
For the Business Analysts to work directly with Assessor Department staff to develop and refine the requirements for new ATS. This also includes project management, documentation and version control and the application test team. The test team performs unit testing, system testing and regression testing using automated and manual means.													
<b>3 Infrastructure – Secured, Unsecured, PTMS Interface</b>													
Writing and documenting code for those functions and capabilities that support ATS as a whole (as opposed to Secured versus Unsecured). Infrastructure includes all of the components of the user interface and other functions such as import/export tools, job scheduling, printing, etc. Infrastructure also includes the network, hardware, software and security architecture of ATS and the capability to interface with PTMS, other applications and support software.													
<b>4 Interfaces – Secured and Unsecured, PTMS</b>													
Writing and documenting code that allows new ATS to interface with other applications in a modular manner. Application interfaces to ATS include PTMS, Geo-Spatial, Comparable Sales, Job Scheduling, etc. The interfaces also include the integration of the new ATS Secured and Unsecured Sub-Systems once the system is implemented.													
<b>5 Production Deployment</b>													
This includes the effort to deploy ATS to the new blade platform at the County Data Center, including creating the builds (executables) and migrating and testing them to each of the Test, Qual, and Production regions, managing the updates through “go-live” deployment, and preparing the documentation for ATS. Production deployment also includes the preparation and installation of the new database in each of the ATS regions.													
<b>6 Post Deployment Support – Secured and Unsecured</b>													
This task is to log, prioritize, and resolve user feedback after the system has been deployed. The feedback can include fixes and enhancements, new functionality as legal and procedural requirements change, and administration of the system. This also covers a period of transition while department staff assumes certain key system support roles.													
<b>7 DATABASE CONVERSION &amp; SUPPORT</b>													
This is the effort to create and refine the new ATS database and convert data from the mainframe ATS to populate the new database, including making refinements to the database to accommodate the needs of the new ATS modules. The database conversion effort requires the team to match the current ATS data structure to the new, and identify and develop scripts for those data elements and/or records that must be cleaned up before they can be migrated to the new ATS.													
<b>8 CEO-IT &amp; DATA CENTER SUPPORT</b>													
The detail estimates are based on recent information provided by CEO-IT and discussions with the Assessor Department. The blade server open systems operating environment is new to ATS and the Data Center. Therefore, these estimates may be adjusted as the platform is being developed, configured and tested.													

# Unsecured Sub-Systems Phased Development and Completion Phasing

Estimates As of July 6, 2009

Release 1 ↓ Release 2 ↓ Release 3 ↓ Production ↓

Phase 1 Oct. 31, 06 (Actuals)	Phase 2 Feb. 28, 07 (Actuals)	Phase 3 Jun. 30, 07 (Actuals)	Phase 4 Oct. 31, 07 (Actuals)	Phase 5 Feb. 28, 08 (Actuals)	Phase 6 Jun. 30, 08 (Actuals)	Phase 7 Oct. 31, 08 (Actuals)	Phase 8 Feb. 28, 09	Phase 9 Jun. 30, 09	Phase 10 Oct. 31, 09
<ul style="list-style-type: none"> <li>- Kick off</li> <li>- Initial Planning</li> <li>- Existing Documentation Collection and organization</li> </ul>	<ul style="list-style-type: none"> <li>- Application Architecture</li> <li>- Initial Proof of concept on                             <ul style="list-style-type: none"> <li>- Workflow</li> <li>- User Interface</li> <li>- Speech</li> </ul> </li> <li>- BPSV</li> </ul>	<ul style="list-style-type: none"> <li>- Workflow Proof of Concept</li> <li>- Search Utility</li> <li>- BP Update (BPU)</li> <li>- Reqmts.</li> </ul>	<ul style="list-style-type: none"> <li>- Unsecured Requirements</li> <li>- Use Cases for next Phase</li> <li>- Analysis and Design</li> <li>- Unsecured Database – Logical and Physical Design</li> <li>- Stored Procedures</li> </ul>	<ul style="list-style-type: none"> <li>- <b>BPU</b> (Update)</li> <li>- <b>BPV</b> (Valuation)</li> <li>- <b>ARC</b> (Roll Correction)</li> </ul>	<ul style="list-style-type: none"> <li>- <b>BPW</b> (BP Workflow)</li> <li>- <b>ENR</b> (Enrollment)</li> <li>- <b>LEP</b> (Leased Equip.)</li> <li>- <b>LER</b> (Lease Referral)</li> <li>- <b>XMP</b> (Exemption - Institutional)</li> <li>- <b>MAP</b> (Marine &amp; Air)</li> <li>- <b>MAW</b>- Workflow</li> <li>- <b>RMK</b> (Remarks)</li> </ul>	<ul style="list-style-type: none"> <li>- <b>AUD</b> (Audit)</li> <li>- <b>XMP</b> (LEQ)</li> <li>- <b>BOS</b> (Other Statement Types)</li> <li>- <b>BCB</b> (Cable)</li> <li>- <b>CAN</b> (Canvassing)</li> <li>- <b>ARB</b> (Arb. Assessment)</li> <li>- <b>BPR</b> (BPS Receiving)</li> <li>- <b>BCO</b> (Commercial Air)</li> </ul>	<ul style="list-style-type: none"> <li>- <b>APL</b> (Appeals)</li> <li>- <b>DSAR</b> (Document Images)</li> <li>- <b>REG</b> (Regeneration)</li> <li>- <b>XMP</b> (Marine and Air)</li> <li>- <b>SCT</b> (Security)</li> <li>- <b>SIT</b> (Situs Control)</li> <li>- <b>UI</b> (User Interface)</li> </ul>	<ul style="list-style-type: none"> <li>- <b>BPT</b> (Print) (Reports)</li> <li>- <b>COR</b> (Correspondence)</li> <li>- <b>SCH</b> (Job Scheduling)</li> <li>- <b>INT</b> Interface w/ COB</li> <li>- <b>INT</b> Interface w/ AC/TC</li> <li>- <b>INT</b> Interface w/ Secured</li> <li>- <b>UNSEC</b> Roll Production</li> </ul>	<ul style="list-style-type: none"> <li>- <b>COP</b> Cut-over preparation</li> <li>- <b>DDC</b> Final Data Conversion</li> <li>- <b>DEP</b> Deployment Readiness</li> <li>- <b>INT</b> SDR/e-SDR Interface</li> </ul>
				<b>3 Modules</b>	<b>8 Modules</b>	<b>8 Modules</b>	<b>7 Modules</b>	<b>8 Modules</b>	<b>4 Modules</b>



Review of Work Products (Documents and Code)--User Acceptance Test

## SOFTWARE INFRASTRUCTURE

UI, Security and Access Control, Database, Search Utility, Event Processing, Report Generation, Remarks, Workflow, Correspondence

## Data Conversion

Chart above depicts the key components of the planning related to the scheduling for the development and delivery of the ATS Unsecured Sub-Systems.

	Complete
	Planned

# Secured Sub-Systems Phased Development and Completion Phasing

Estimates As of July 6, 2009

	Release 1		Release 2		Production		
Phase 6 Jun. 30, 2008	Phase 7 Oct. 31, 2008	Phase 8 Feb. 28, 2009	Phase 9 Jun. 30, 2009	Phase 10 Oct. 31, 2009	Phase 11 Feb. 28, 2010	Phase 12 Jun. 30, 2010	Phase 13 Oct. 31, 2010
<p><i>Mock-ups</i></p> <ul style="list-style-type: none"> <li>- <b>NCS*</b> (New Construction for Tracts &amp; Grids – Attributes capture - Mockups)</li> <li>- <b>FDC</b> (Field Data Canvass) – UI Integration with New Construction System</li> <li>- Module Overview and Requirements for next Phase</li> <li>- <b>SIT</b> (Situs Control)</li> <li>- <b>NAD</b> (Name and Address Control)</li> <li>- <b>CCP</b> (Mapping)</li> <li>- <b>OWN</b> (Ownership)</li> <li>- <b>XMP</b> (Homeowner and Veteran Exemption)</li> <li>- <b>SPL</b> (Special Properties)</li> </ul> <p>* Includes all property types (SF, MF, MH, CM, IN)</p>	<ul style="list-style-type: none"> <li>- Module Overview and Requirements for next Phase</li> <li>- <b>TRF</b> (Transfer)</li> <li>- <b>CCP</b> (Mapping)</li> <li>- <b>OWN</b> (Ownership)</li> <li>- <b>DSAR API</b></li> <li>- Physical Database design</li> <li>- Stored Procedures</li> <li>- Module Overview and Requirements for next Phase</li> <li>- Application design storybooks for next phase</li> <li>- Inputs and Outputs Analysis for next phase</li> </ul>	<p><i>Code and Test</i></p> <ul style="list-style-type: none"> <li>- <b>CCP</b> (Cuts / Combo / Many-to-many Processing)</li> <li>- <b>CCP</b> (Other Mapping functions)</li> <li>- <b>XMP</b> (Exemptions – Homeowners and Veterans)</li> <li>- <b>SIT</b> (Situs Control)</li> <li>- <b>OWN</b> (Ownership)</li> <li>- <b>Timeshare</b></li> <li>- <b>NAD</b> (Address Control)</li> <li>- <b>TRF</b> (Transfer Valuation)</li> <li>- <b>Propositions</b></li> <li>- <b>Comp Sales</b></li> <li>- <b>Events &amp; Status</b></li> <li>- <b>RAI Interface</b></li> <li>- Physical Database design</li> <li>- Stored Procedures</li> <li>- Module Overview and Requirements for next Phase</li> <li>- Application design storybooks for next phase</li> </ul>	<p><i>Code and Test</i></p> <ul style="list-style-type: none"> <li>- <b>ENR</b> (Enrollment Annual)</li> <li>- <b>ESU</b> (Secured Billed to Unsecured)</li> <li>- <b>EUS</b> (Unsecured Billed to Secured)</li> <li>- <b>ARP</b> (Annual Roll Processing)</li> <li>- <b>ESR</b> (Enrollment - Supplemental)</li> <li>- <b>ARC</b> (Roll Correction) <ul style="list-style-type: none"> <li>- <b>APL</b> (Appeals)</li> <li>- <b>ESC</b> (Escapes)</li> <li>- <b>REV</b> (Revisions)</li> <li>- <b>PRR</b> (Proration)</li> <li>- <b>CAL</b> (Calamity)</li> </ul> </li> <li>- <b>ECA</b> (Economic Adjustments)</li> <li>- <b>Events &amp; Status</b></li> <li>- <b>BAT</b> (Batch Jobs)</li> <li>- Module Overview and Requirements for next Phase</li> <li>- Application design storybooks for next phase</li> </ul>	<p><i>Code and Test</i></p> <ul style="list-style-type: none"> <li>- <b>NCS</b> (Permit processing, Attributes capture &amp; Valuation) <ul style="list-style-type: none"> <li>- Cost Tables</li> <li>- Factor Updates</li> </ul> </li> <li>- <b>FDC</b> (Field Data Canvass) Integration</li> <li>- <b>GEO API</b> (Geospatial)</li> <li>- <b>APEX API</b></li> <li>- <b>AES API</b></li> <li>- <b>SPL</b> (Special Properties)</li> <li>- <b>Events &amp; Status</b> (Other types of events such as LGL, VAL)</li> <li>- <b>BAT</b> (Batch Jobs)</li> <li>- Physical Database design</li> <li>- Stored Procedures</li> <li>- Module Overview and Requirements for next Phase</li> <li>- Application design storybooks for next phase</li> </ul>	<p><i>Code and Test</i></p> <ul style="list-style-type: none"> <li>- <b>SCT</b> (Security)</li> <li>- <b>RPT</b> (Reports)</li> <li>- <b>INT</b> (Interfaces) <ul style="list-style-type: none"> <li>- <b>INX</b> (External Interface)</li> <li>- <b>INC</b> (County Agency Interfaces)</li> <li>- <b>INI</b> (ATS Application interfaces)</li> </ul> </li> <li>- <b>SRR</b> (Secured Roll Regeneration)</li> <li>- <b>PRP</b> (Post Roll Processing)</li> <li>- Stored Procedures</li> <li>- Module Overview and Requirements for next Phase</li> <li>- Application design storybooks for next phase</li> <li>- <b>BAT</b> (Batch Jobs)</li> </ul>	<p><i>Code and Test</i></p> <ul style="list-style-type: none"> <li>- <b>ADMIN</b> (ATS application Administration Interface) <ul style="list-style-type: none"> <li>- Factor Updates</li> <li>- Batch Scheduling</li> <li>- Forms etc.</li> </ul> </li> <li>- Documentation User Guides</li> <li>- Systems Guides</li> <li>- Database</li> <li>- Data Cleanup and Deployment readiness</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Cut-over</b> planning and operations starts in July 2010</li> <li>- Update documentation</li> <li>- Convert and true up data for Unsecured and Secured to Jan 1, 2011 leading to Roll Production July 2011</li> <li>- <b>Integration</b> (Secured and Unsecured)</li> </ul>

Review of Work Products (Documents and Code)--User Acceptance Test

## SOFTWARE INFRASTRUCTURE

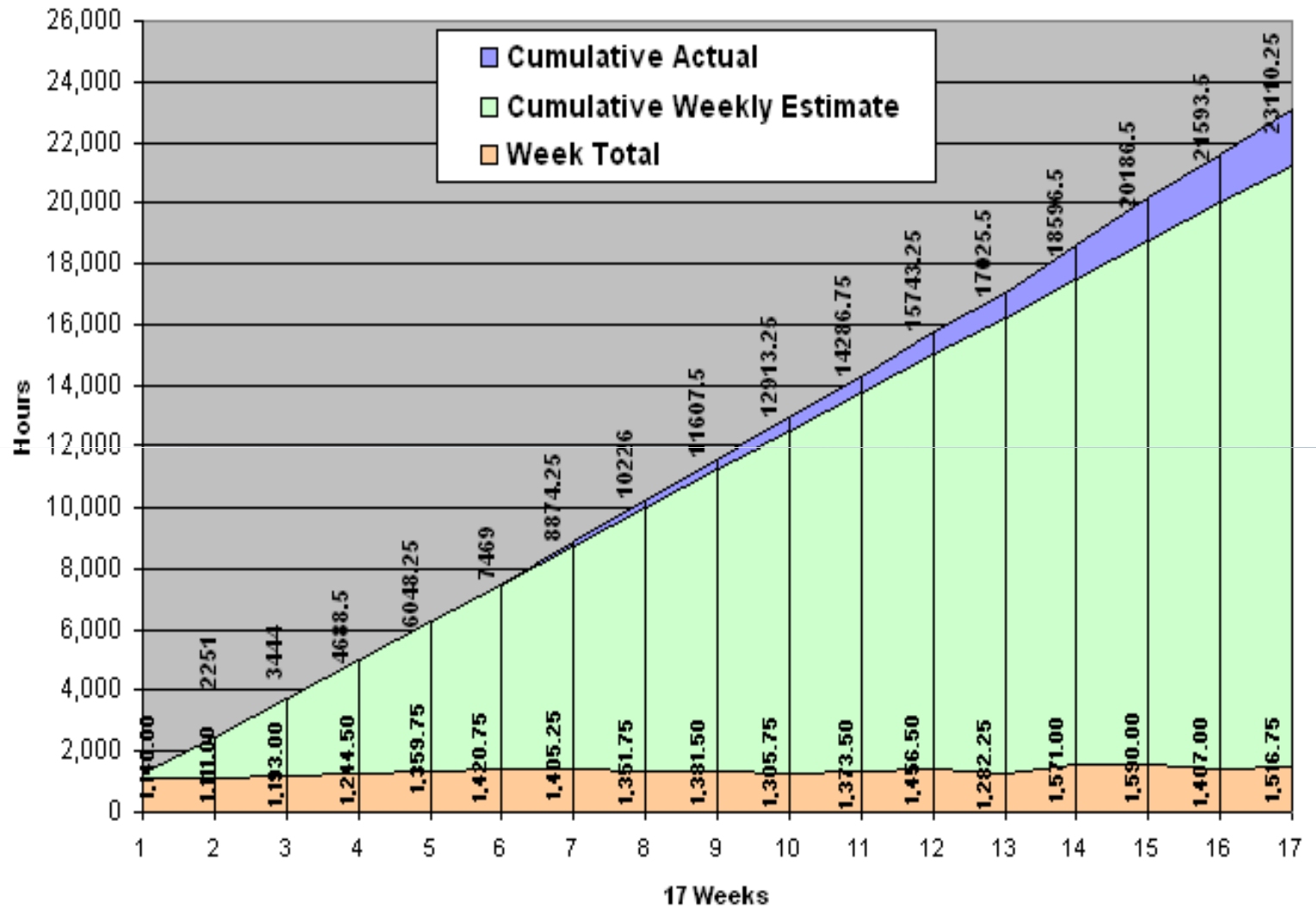
UI, Security and Access Control, Database, Search Utility, Event Processing, Report Generation, Remarks, Workflow, Correspondence

## Data Conversion

	Complete
	Planned

Chart above depicts the key components of the planning related to the scheduling for the development and delivery of the ATS Secured Sub-System.

# Phase 6 – Estimated vs. Actual Development Hours (for 3/3/08 – 6/29/08)



# Phase 7 – Estimated vs. Actual Development Hours (for 6/30/08 – 11/2/08)

