



# GIS & Municipal Business - Integration Strategy, Tools and Methodology

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# Agenda

What are we talking about?

Why bother?

The Past

The Now

Challenges/Risks

Variations

Approach

Happy Customers



# Integrations Are...

Synchronization of data between  
systems

*(automated)*

*Simple &/or Complex*

*Internal &/or External*

*Interface &/or Functional*



# Anatomy

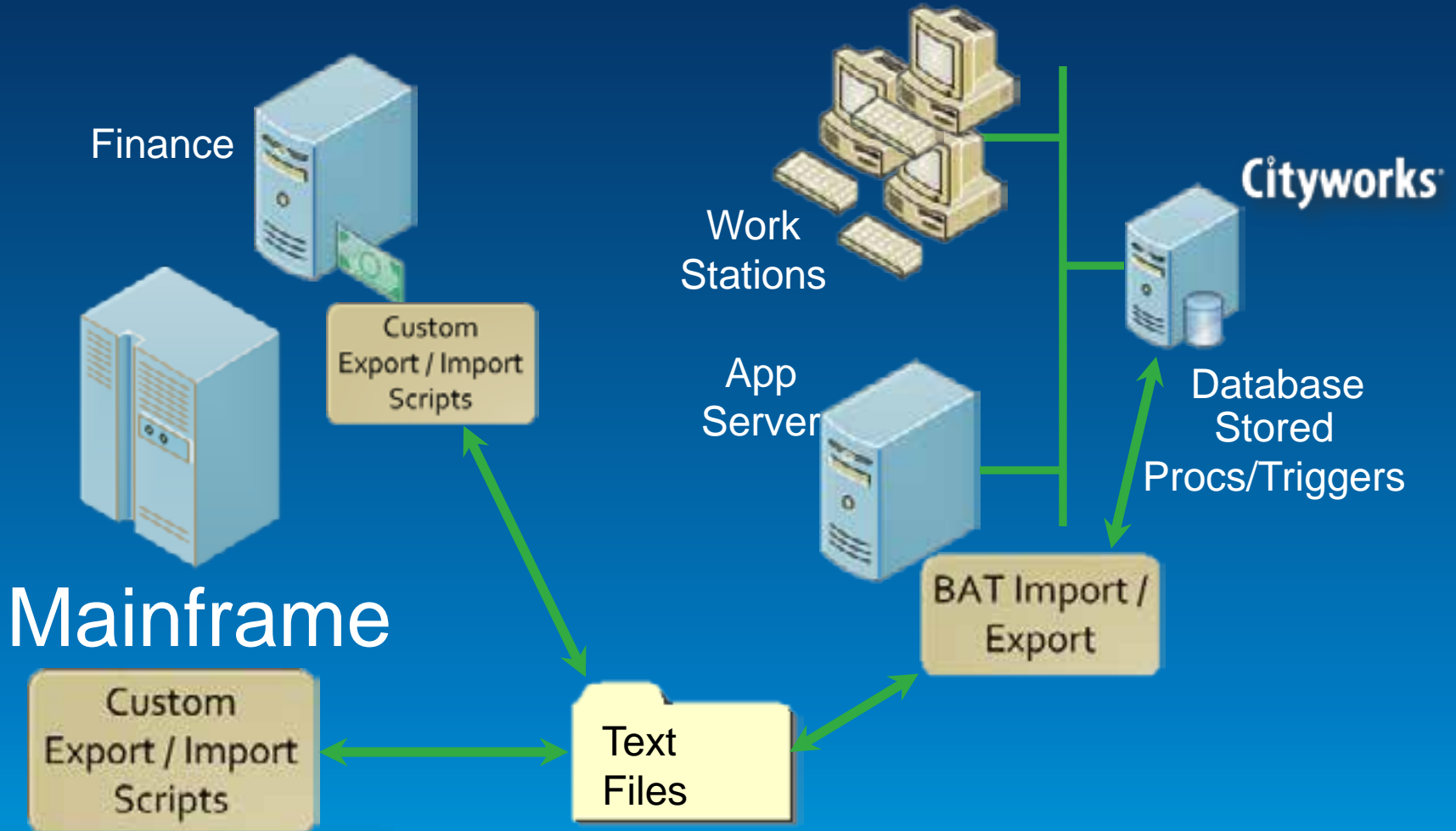
- ∅ Scripts (BAT, db Triggers, Stored Procs)
- ∅ Custom developed software
  - ∅ Application Programming Interfaces (APIs)
  - ∅ SDK's
  - ∅ Web Services
- ∅ File Transfer
- ∅ Scheduled processes
- ∅ Others...

# Why Bother?

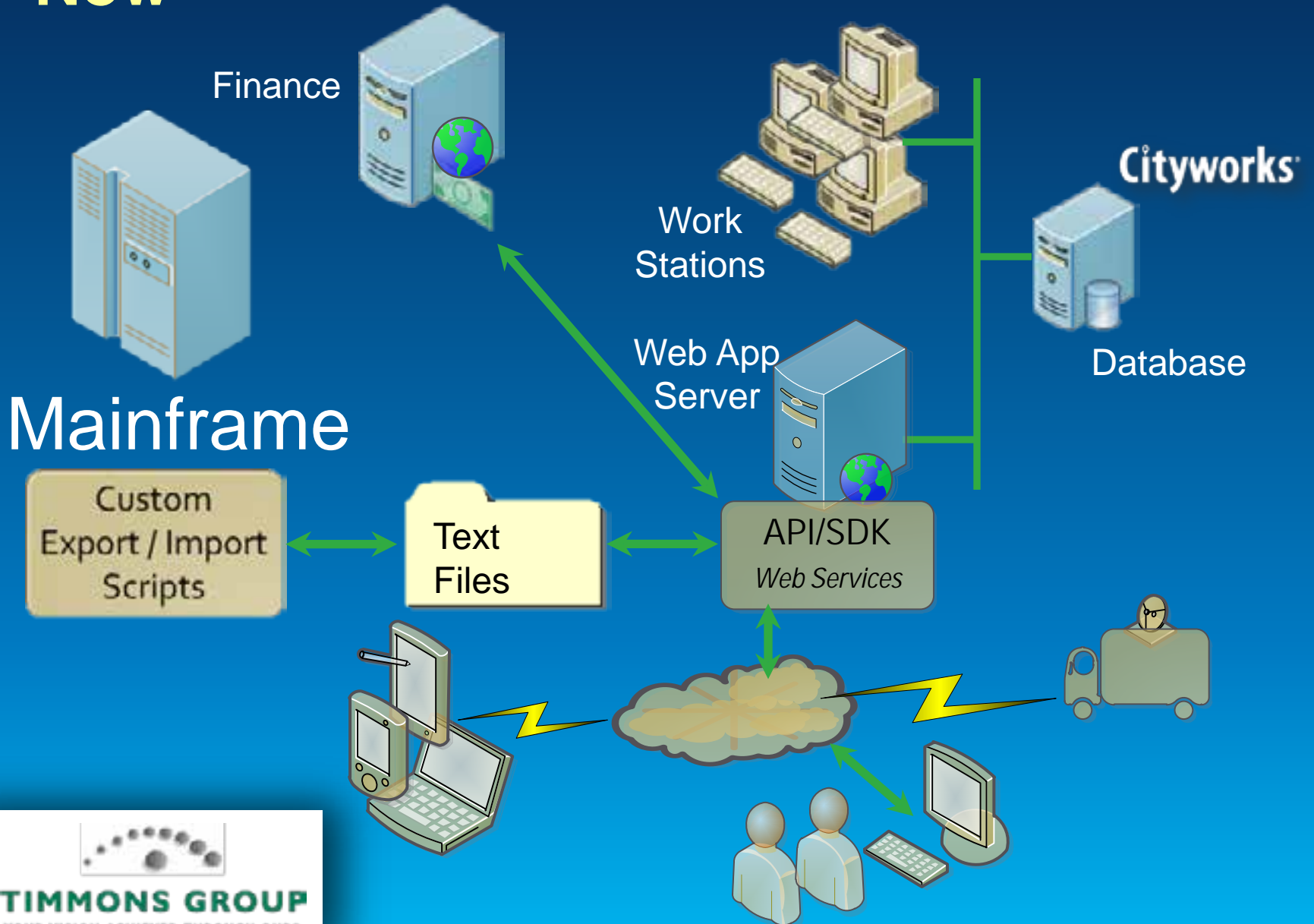
- ∅ Leverage Data from one system in another
- ∅ Reduce Overhead associated with manual sharing of information
- ∅ Reduce / Eliminate Redundancy of Data Maintenance
- ∅ Less Data Entry == Fewer Errors
- ∅ ROI

# Legacy Integration Model

## The Past



# Now



# Why Custom Code?

- Triggers / Stored Procs (...a time and place)
  - Version Control “sneaker net” (Redgate – sorta)
  - Trigger Failures (no logging)
  - Debug/Unit Testing (not really)
  - Can't leverage Cityworks (or others) API's or SDK



# Why Custom Code?

- Custom Code
  - More tools in the box
  - Tight security
  - Unit Testing / Debug
  - Compiled Code/Logic
  - Version Control (Subversion!)
  - Cityworks (and others) API's and SDK
  - Web Services



# Challenges

- Communication (lack thereof)
- Territorial Disputes (becoming a dino)
- 3<sup>rd</sup>-Party Cooperation
- Data Types
- Systems Security
- Corporate IT Policies
- Automation (*Propagation of Errors*)

## 2 Flavors

- Concurrent Cityworks Deployment
  - Concurrent 3<sup>rd</sup>-party systems deployment
  - Existing 3<sup>rd</sup>-party system(s)
- Existing Cityworks Deployment
  - Concurrent 3<sup>rd</sup>-party systems deployment
  - Existing 3<sup>rd</sup>-party system(s)



# Approach - Road Map to Customer Satisfaction

- Planning (Have a Plan – Execute a Plan)
  - Requirements / Assessment
  - Design
- Build
  - Prototype
- User Acceptance and Testing (UAT)
- Training
- Production Deployment

Production Review  
(Mods/Enhancements)



# Planning

- Identify Stakeholders
- Identify Systems of Record





# Build

- Modified Agile Approach
  - Iterative Review
  - Weekly Progress Meetings
- Proof of Concept
  - Prototype Core Application
  - Test Connectivity Between Systems



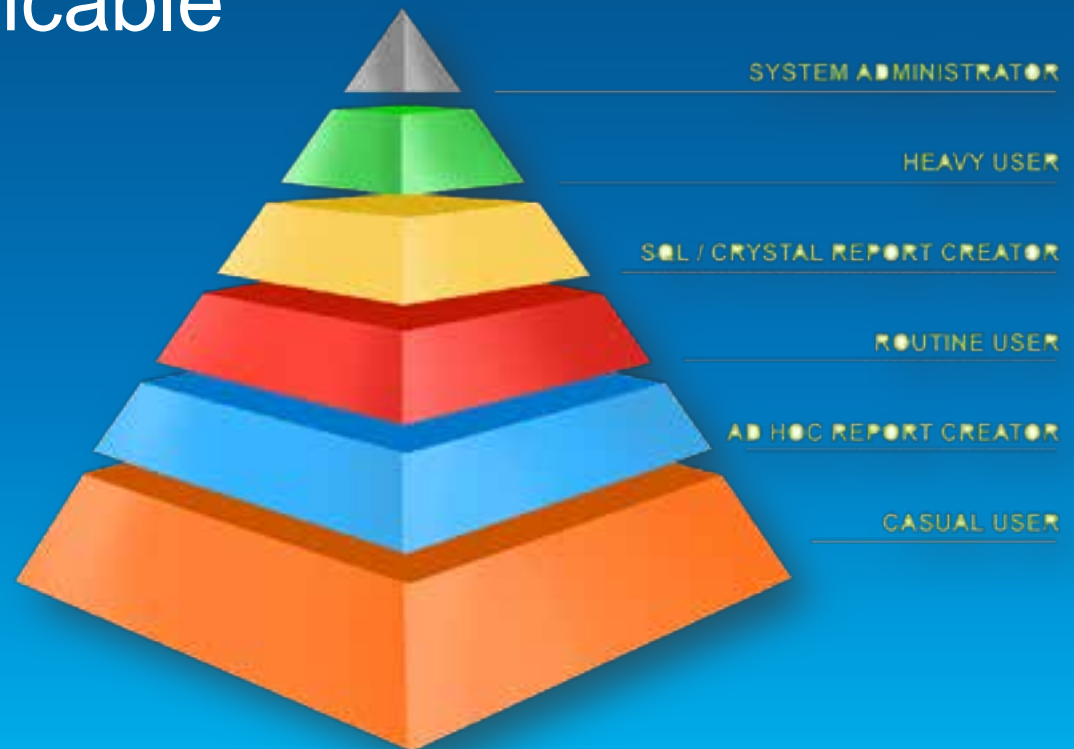


# User Acceptance & Testing

- Close-coordination with Client Representative(s)
- Develop Use Cases
  - Functional Testing (non-UI)
  - Data Testing
  - UI Testing
- Prep Test Data (reset scripts if necessary)

# Training

- Primarily Systems Administrator
- UI Where Applicable





# Production Review

- Defined Period
- Modifications
- Systems Enhancements





# Happy Customer

## City of Auburn AL

- Cityworks and GIS Integration with:
  - Tyler Technologies' Eden System Integration
  - Customer Service (Meters)
  - Materials
  - Equipment
  - Employees
  - Customers



# Happy Customer



Skagit PUD #1- Mount Vernon WA

- Cityworks and GIS Integration with:  
*Modeling Complete – Integration In Progress*
  - Harris Cayenta and North|Star
  - Customer Service
  - Labor/Employees
  - Materials
  - Equipment
  - Contractors





## Happy Customer

### Alpharetta GA

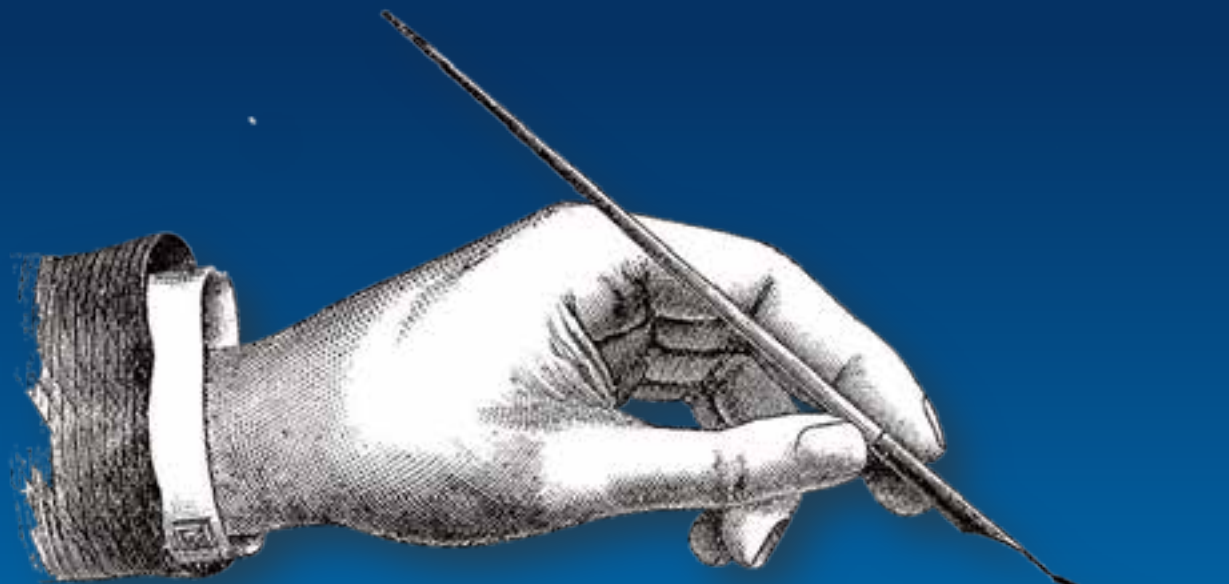
- It's just getting good!
- Cityworks (AMS/PLL) and GIS Integration with:
  - MUNIS
  - ACS Firehouse (w/ PLL)
  - Plan Check (w/ PLL)
  - Filemaker Data Migration



# Questions







*Thank You*



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