

Walk-in Slide: AU 2014 Social Media Feed

1. Click on the link below, this will open your web browser

<http://aucache.autodesk.com/social/visualization.html>

2. Use “Extended Display” to project the website on screen if you plan to work on your computer. Use “Duplicate” to display same image on screen and computer.

GS6463: Managing Building- and Condition-Assessment Data with Infrastructure Map Server and BIM 360 Field

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Class summary

In this class we will show how you can minimize risk during construction by using Infrastructure Map Server software and BIM 360 Field software to have reliable, searchable inspection data that is readily available in an easy-to-use, web-based system.

The Pre and Post Facility Condition Inspection System will manage all aspects of the condition of; and it will do so in a database that provides time-bound, consistent, reliable, auditable, and secure access to a set of data elements.

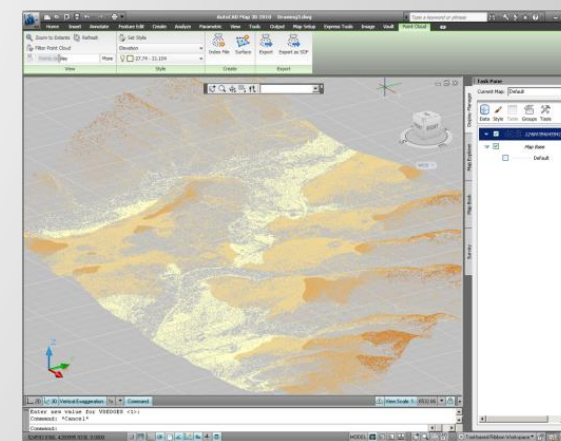
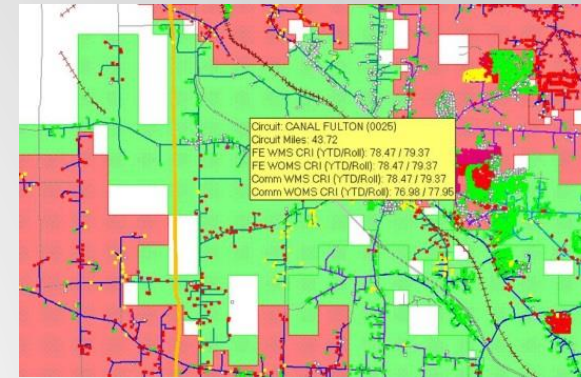
Key learning objectives

At the end of this class, you will be able to:

- Learn how to see that inspected and non-inspected infrastructure and buildings are easily visualized for quick review
- Understand how inspectors, analysts, and stakeholders can access and review the data in a web-based format
- Discover how construction corridors, existing infrastructure, and geographic information system layers can coexist for visualization of inspections
- Find out how the data can be managed using a variety of tools suited to the particular needs of the stakeholders

Business Case

- Cost Effort to setup Field
 - May be significantly lower than typical options deployed today.
 - Limited internal IT infrastructure
 - Limited training
 - Ease of configuration
- Inspection for Geographically Dispersed Assets
 - Field currently not suited to large geographic areas
 - Easily integrated using API and Autodesk Infrastructure Map Server

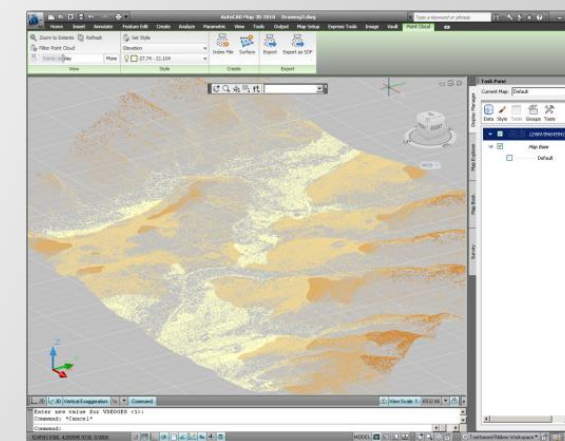
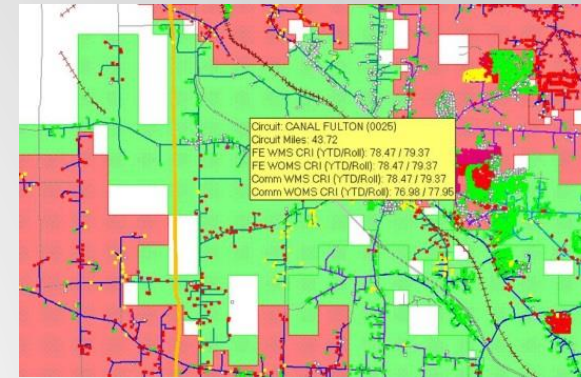


Gap with GIS: Missing Link

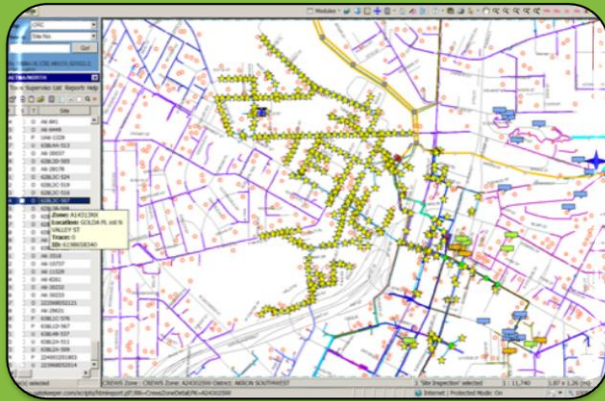


Gap with GIS: the Missing Link

- Infrastructure pre/post-construction inspections maintain essential data
- Inspected and non-inspected infrastructure has administrative information that identifies
 - Absolute GPS; Relative location with respect to corridor
 - Address details and visual references (photographs)
 - Who made the inspection; when the inspection was made
 - Relevant inspection documents
- GIS layers can provide the detailed imagery needed
 - Raster imagery, LiDAR scans, aerial photography
 - Parcel, property and political boundaries



Gap with GIS: the Missing Link



Need to be able to review geographically dispersed assets based on their location

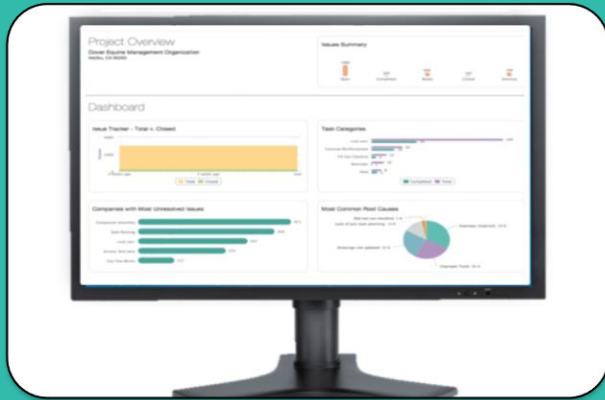
- Navigate and find location based assets
- View spatial information in the field
- Link a field location setting to an area/grid polygon



Need to answer the question

“Show me everything in this area that:

- Requires inspection for quality or safety
- Has an issue pending (leaks, cracks, construction damage)
- Needs updated information



Need to keep the features in BIM 360 available

- Take advantage of field capabilities
- Keep issue tracking, inspection checklists and incomplete work available
- Don't want to lose these by rebuilding in GIS

An aerial perspective of a cityscape. In the foreground, a multi-lane bridge with a rainbow-colored line along its edge spans a river. A red car is visible on the bridge. To the right of the bridge is a green park area with a blue oval field. In the background, a large stadium with a circular roof is visible, surrounded by various city buildings and skyscrapers under a clear blue sky.

Product overview

BIM360 Field Overview

- Project teams and Managers can create field management programs in the BIM360 Field Web Site
- Allowing Quality, Safety, Commissioning and Documents to be managed in one place by Area, Responsible Company or other criteria.
- Manage Issues and Checklists and build Checklist libraries
- Library feature allows you to manage and distribute documents of any type in the office or the field.
- Track Issues/Tasks/Checklists/Equipment and Reporting



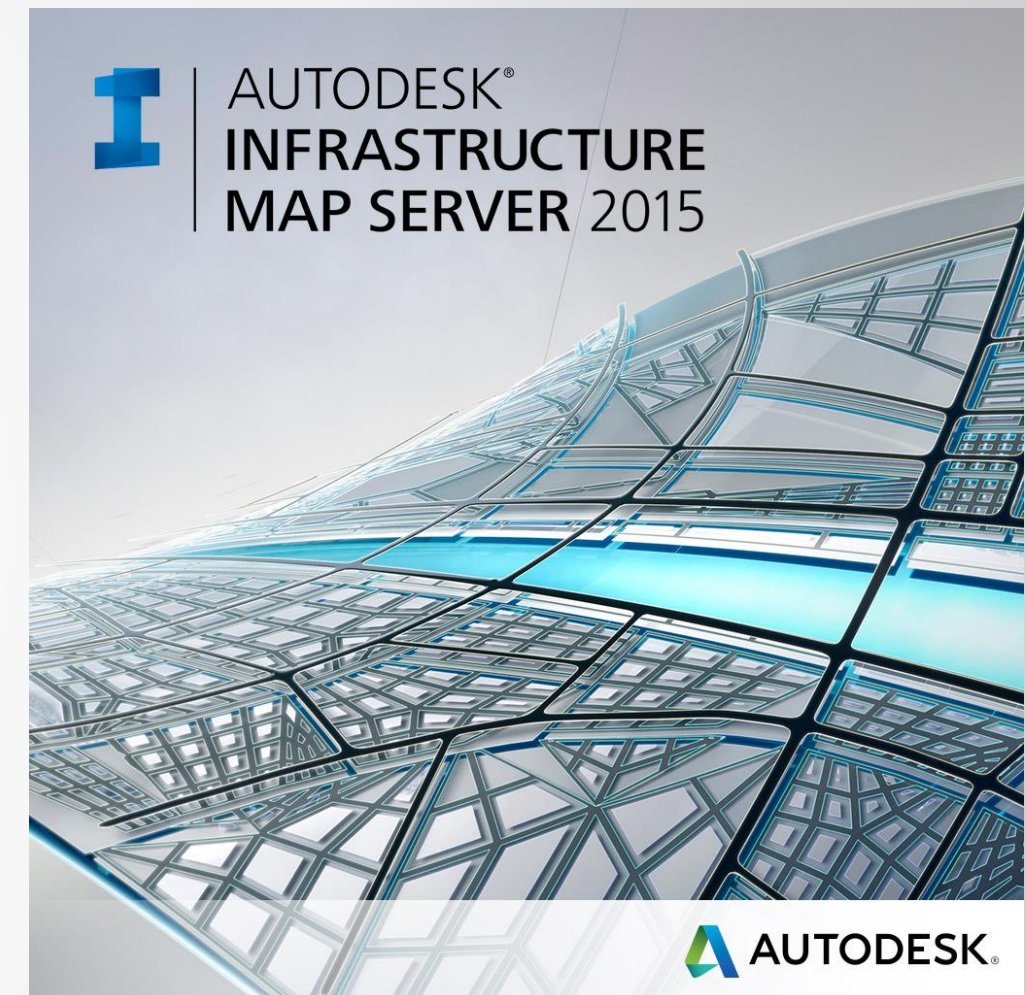
BIM360 Field iPad App

- Field personnel can access project info using the Field iPad app including project models.
- Field app works online or offline
- Can submit photos using an iPad or mobile phone
- Update equipment records in the field



Autodesk Infrastructure Map Server (AIMS) Overview

- Web based GIS mapping software
- Publish and share CAD, GIS and asset information
- Web based mapping dashboards and reports
- Edit industry model data using Application Extension



An aerial perspective of a city skyline across a river. In the foreground, a multi-lane bridge with a rainbow-colored light strip along its edge spans the river. A red car is visible on the bridge. The riverbank features green grass, trees, and a small landscaped area with purple flowers. In the background, a dense urban skyline with various skyscrapers is visible under a clear blue sky. A semi-transparent white banner is overlaid across the middle of the image, containing the title text.

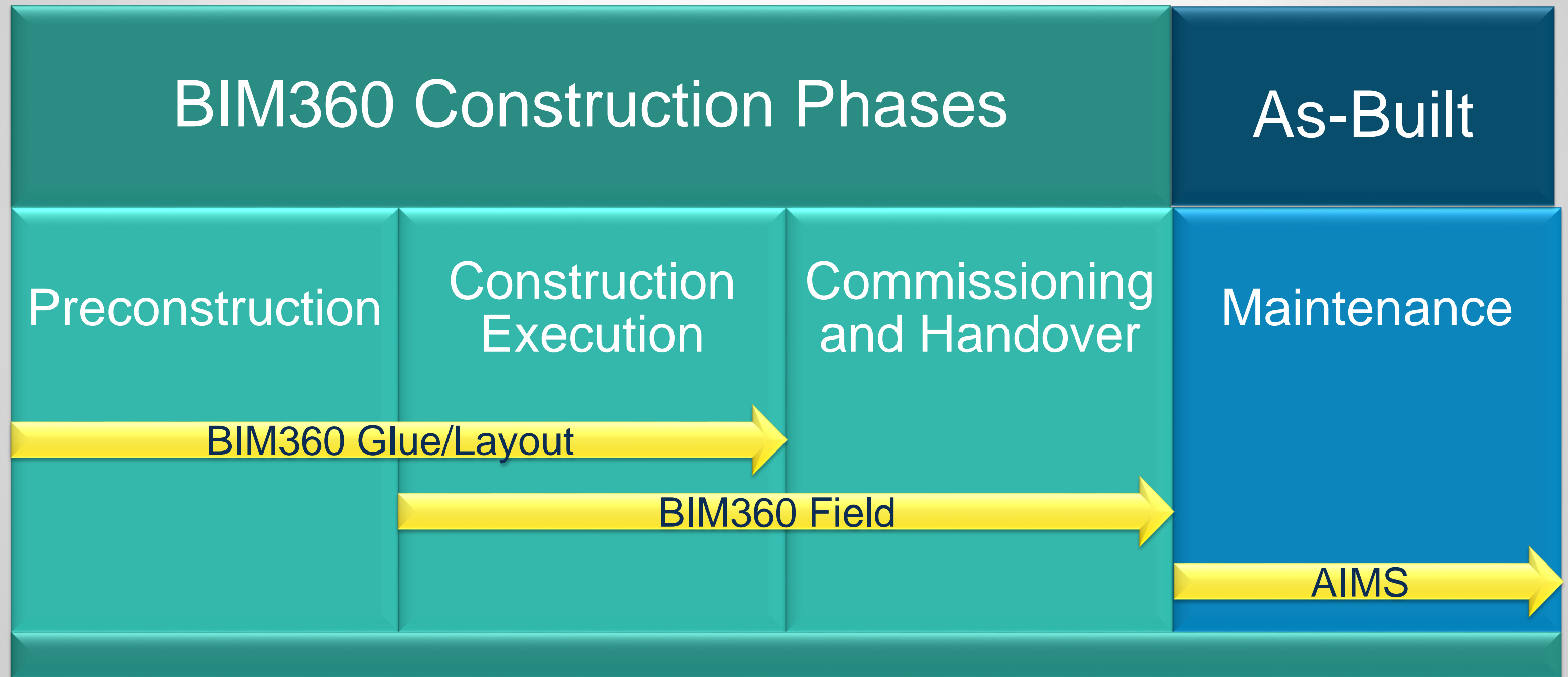
Our Approach to Bridge the Gap



Our Approach to Bridge the Gap

- Publish spatial data to AIMS
- Link to Field using unique identifier (Asset Id, Equipment Tag, ...)
- Use spatial functions to navigate and find assets
- Link to Field to complete checklists and update condition records
- Sync changes in Field back to spatial database
- Theme map layers by condition/inspection status

Our Approach to Bridge the Gap



Solution Architecture

Map/AIMS/Other



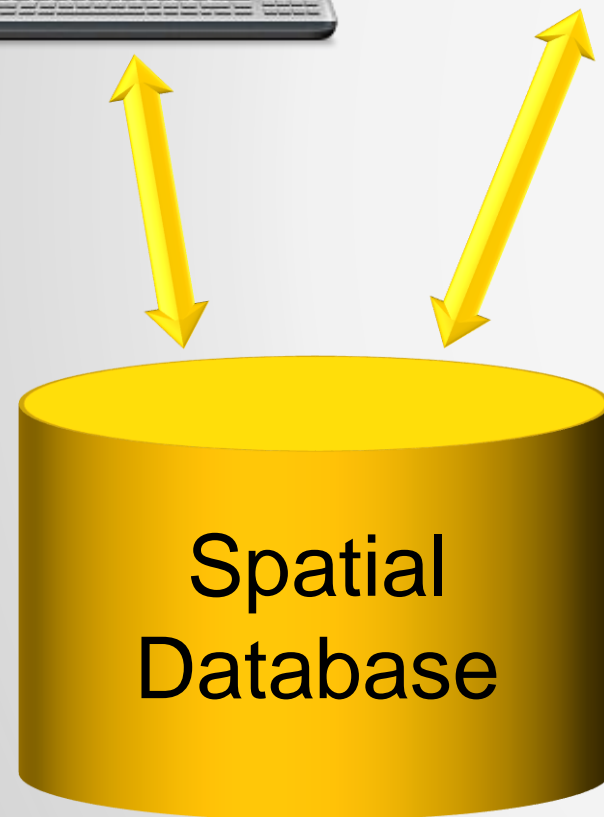
AIMS Mobile Viewer



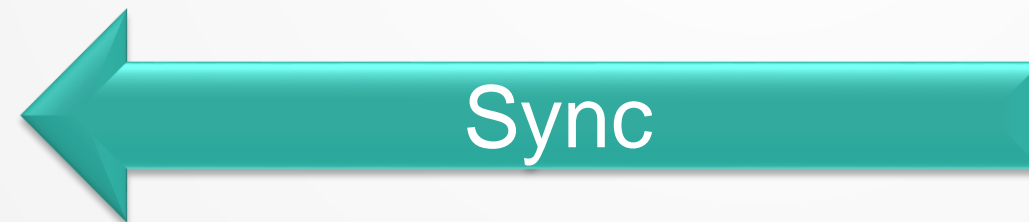
Field Web Client



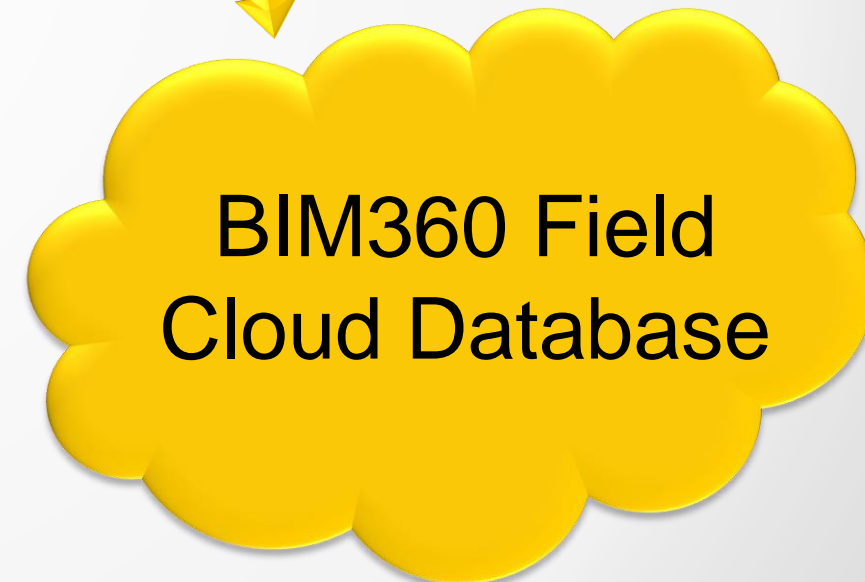
Field Mobile



Spatial
Database



Sync



BIM360 Field
Cloud Database

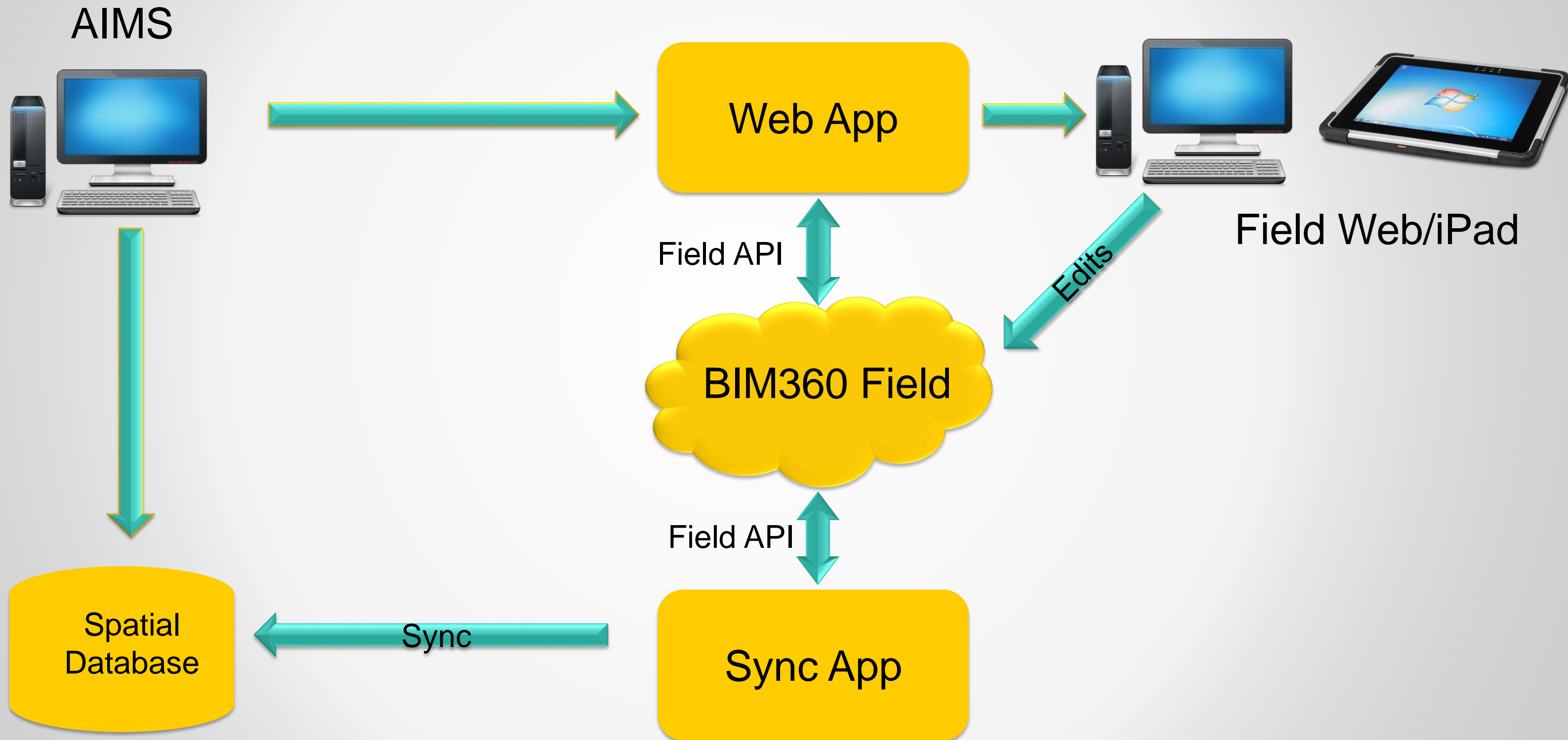
Demonstration



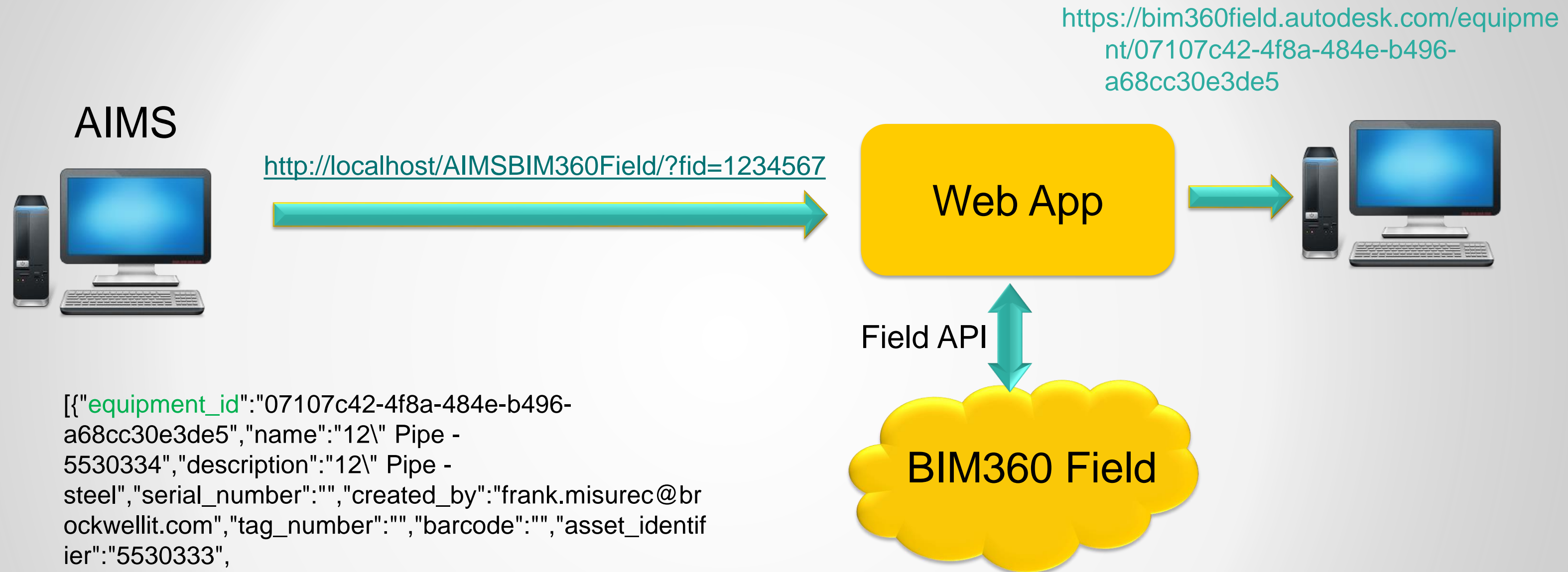
An aerial perspective of a cityscape. In the foreground, a multi-lane bridge with a rainbow-colored light strip along its edge spans a river. A red car is visible on the bridge. The riverbank is landscaped with green grass, trees, and a small garden bed. In the middle ground, a large stadium with a circular roof is visible, surrounded by parking lots and other buildings. The background features a dense urban skyline with various skyscrapers under a clear blue sky.

Technical Details

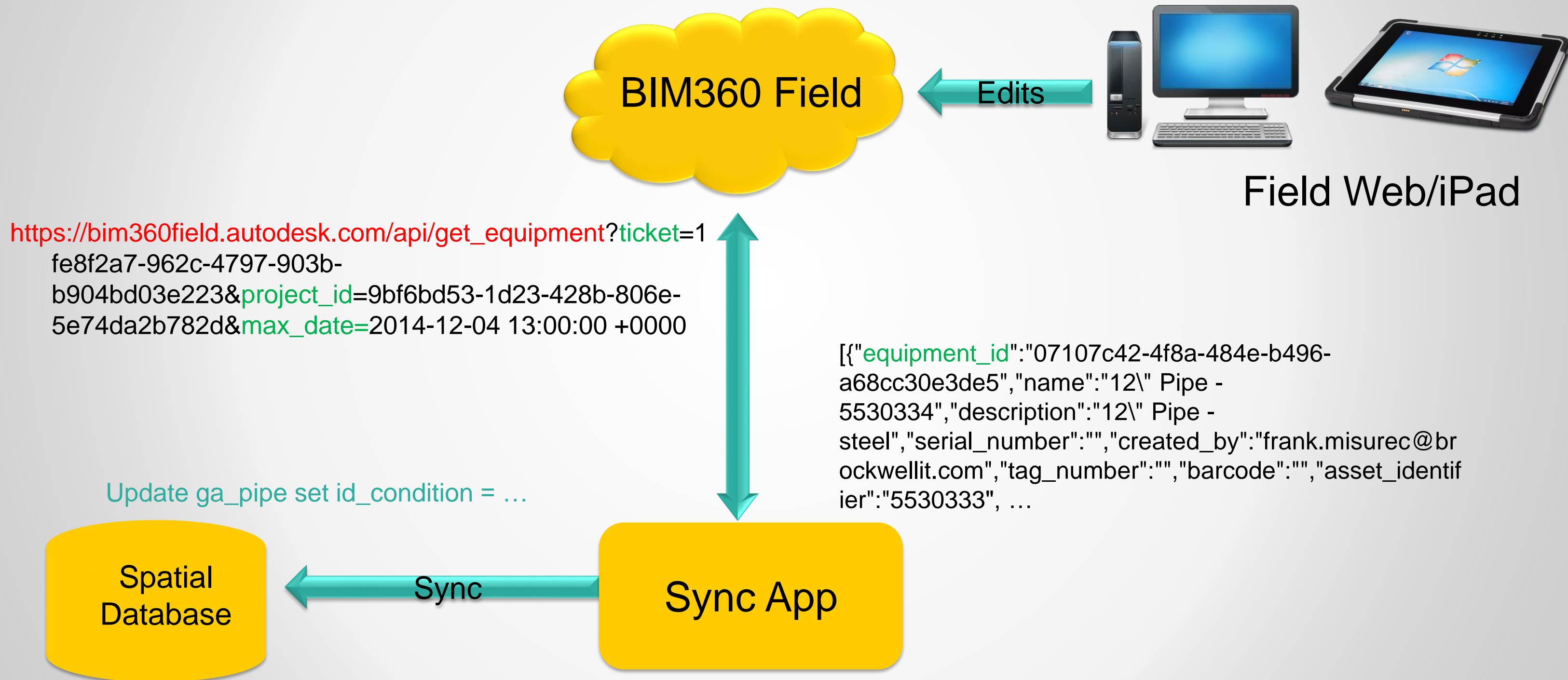
How it Works



How it works: Technical Details



How it Works



Session Feedback

- Via the Survey Stations, email or mobile device
- AU 2015 passes given out each day!
- Best to do it right after the session
- Instructors see results in real-time







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