Build Transactions Into Your Apps and Mobilize Your Enterprise with MicroStrategy 10
Introduction

What is a workflow app?

Transaction Services Component Objects

Transaction Input Controls

Transaction Embedded Widgets

Offline Transactions Capabilities

Use Case

Questions
MicroStrategy Product Offerings Architecture

- **Development Tools**
  - MicroStrategy Desktop
  - MicroStrategy Web
  - MicroStrategy Office
  - MicroStrategy Mobile

- **User interfaces**
  - Report Services
  - Distribution Services
  - Transaction Services

- **INTELLIGENCE SERVER**
  - SQL Engine
  - Analytical Engine
  - Multi-Core In-Memory Engine
  - Multi-source
  - Clustering
  - MDX Engine

- **Admin Tools**
  - Operations Manager
  - Enterprise Manager
  - Command Manager
  - Object Manager
  - Integrity Manager
  - System Manager

- **Developer**
- **Architect**
- **SDK**

- **Data sources**
  - Departmental Data
  - Relational Databases
  - Cloud Data Sources
  - Hadoop
MicroStrategy Mobile Applications - Insight into Action

Analytics
- Grids and graphs
- Data visualizations & exploration
- Mapping
- Business Intelligence

Multimedia
- Video streaming, RSS Feeds
- SharePoint files
- Mobile information channels

Transactions
- Write-back, Commentary
- Mobile front-end to ERP/CRM
- Surveys

Workflow Apps
Transaction Services

Workflow enabling capabilities

**Touch Based Inputs**
- Transactional input forms
- Flexible drag-and-drop design
- Change/add new data
- Text, number, calendar, GPS, switches, stepper, sliders, widgets

**Offline Transactions**
- Approve, submit, and edit information in absence of cellular or wifi signal
- Transactions are queued for submission when you next connect

**Image Capture**
- Capture and upload images
- Retailers- storefront product displays
- Insurance agents- claims images
- Business-visual records
Introduction

What is a workflow app?

Transaction Services Component Objects

Transaction Input Controls

Transaction Embedded Widgets

Offline Transactions Capabilities

Use Case

Questions
What is a workflow app?

A software application which supports a business process.
What Do Workflow Apps Allow You to Do?

Benefits include:

- Provides users with two-way interactive mobile experience with ability for other users to immediately benefit from a user’s inputs and insights.
- Enhances existing transactional systems by providing a mechanism for remote data collection.
- Can serve as a mobile front end to CRM/ERP system.
- Enables what-if analysis.
- Turns insight into action through mobile intelligence.
# Workflow Actions

**What can you do?**

## Receive Information

<table>
<thead>
<tr>
<th>Flight Route</th>
<th>To</th>
<th># of Flights</th>
<th># of Delayed</th>
<th>Delayed %</th>
<th>Diverted %</th>
<th>Cancelled %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABE-JKL</td>
<td>Hartfield-Jackson</td>
<td>1,365</td>
<td>576</td>
<td>42%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>ABE-CLE</td>
<td>Hollywood International</td>
<td>570</td>
<td>90</td>
<td>16%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>ABE-CLT</td>
<td>Charlotte Douglas</td>
<td>179</td>
<td>229</td>
<td>29%</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>ABE-DTW</td>
<td>Detroit Metro Wayne County</td>
<td>2,087</td>
<td>707</td>
<td>34%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>ABE-CLT</td>
<td>Fort Lauderdale International</td>
<td>181</td>
<td>134</td>
<td>86%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>ABE-ORD</td>
<td>Orlando International</td>
<td>460</td>
<td>159</td>
<td>34%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>ABE-ORD</td>
<td>O'Hare</td>
<td>3,084</td>
<td>1,080</td>
<td>34%</td>
<td>0%</td>
<td>3%</td>
</tr>
</tbody>
</table>

## Take Action

---

**MicroStrategy**
Mobile Workflow Apps in the Enterprise

Examples of Common Process Workflows and Use Cases

Mobilize existing operational apps
- Planning and forecasting
- Order management
- Approvals
- Crisis resolution

Action-enable business processes
- Vendor portal interfaces
- Corporate surveys
- IT helpdesk requests

Create new consumer apps
- Customer feedback
- Product reviews
- Event registrations
- Account self service
Mobile Workflow Apps in the Enterprise

Request Processing/Management
- Review items requiring action
- Approve requests based on insight
- Deny requests
- Reconsider ongoing requests

Supply Chain and Order Management
- Analyze current state
- Edit an order
- Change values using touch controls
- Update values to modify orders/prices
Mobile Workflow Apps in the Enterprise

Appointment Scheduling
Schedule services
Collect customer data
Cancel and reschedule

Financial Management
Manage exposure
Approve transfers
Update amounts/dates

Remote Data Collection
Empower sales force
Capture product state
Capture event information
Introduction

What is a workflow app?

Transaction Services Component Objects

Transaction Input Controls

Transaction Embedded Widgets

Offline Transactions Capabilities

Use Case

Questions
Support for Existing Transactions Systems via Web Services

Connect to Custom Operational or ERP/CRM using X-Query

Connect to

Custom operational

Finance/accounting
Human resources
Manufacturing
Supply chain management
Project management
Customer relationship management
Data services
Access control

Packaged ERP/CRM

SAP
SharePoint
PeopleSoft
Primavera
Salesforce.com
Oracle
JD Edwards EnterpriseOne

xQuery for web services or SQL database transactions

xQuery for web services

MicroStrategy
Components of Transaction Services - Grid/Graph, Data Entry

Transaction Report Feeds Document via Grid/Graph Object

1. Transaction Report
2. Document with Grid/Graph Object
   - Report Dataset
   - Transaction Panel Stack
Components of Transaction Services - Transaction

Connect the Grid/Graph to the Transaction Inputs, Add Action

3. Configured transaction and input control on Grid/Graph

4. Action Selector Button targets Grid/Graph
Components of Transaction Services - Document

Data Entry Form - Mobile User View

- Input Label from Grid/Graph: configure transaction
- Input Control from Grid/Graph: configure transaction
- Action selector

CARLAS PASTA Inc.
South Windsor, CT

Customer Interaction
2.6
Housekeeping
2.7
Merchandise Display
3.3
Inventory
No Action Required
Labor
Temporary Staff Increase
Notes
Workflow from homescreen

Submit Inspection
Agenda

Introduction

What is a workflow app?

Transaction Services Component Objects

Transaction Input Controls & Settings

Transaction Embedded Widgets

Offline Transactions Capabilities

Use Case

Questions
## Transaction Input Controls

Change data by using input controls:

<table>
<thead>
<tr>
<th>Input Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Star Rating</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td>Blue Star Rating</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td>Stepper</td>
<td>0</td>
</tr>
<tr>
<td>Slider</td>
<td></td>
</tr>
<tr>
<td>Checkbox</td>
<td></td>
</tr>
<tr>
<td>Radio Buttons</td>
<td>Green</td>
</tr>
<tr>
<td>Likert - Scale Rating</td>
<td>1 - Poor</td>
</tr>
<tr>
<td>Calendar</td>
<td></td>
</tr>
<tr>
<td>List</td>
<td>John Smith</td>
</tr>
<tr>
<td>Barcode Reader</td>
<td>Tap to scan</td>
</tr>
<tr>
<td>Switch</td>
<td></td>
</tr>
<tr>
<td>Text Field</td>
<td></td>
</tr>
<tr>
<td>Text Area</td>
<td></td>
</tr>
</tbody>
</table>

*Image of iPad showing a transaction services interface with input controls.*
Transaction Input Controls: Barcode Scanner
Transaction Input Setting: Conditional Logic

Make a control’s visibility and other properties conditional upon the values of other input controls.

Example: Show an additional field or turn an optional field into a required field based on what the user selected on a previous field.
Input controls populated with data from the dataset can filter the available options for other input controls.

Controls behave just like selectors, they may filter any other element on the document not only other input controls.
Introduction

What is a workflow app?

Transaction Services Component Objects

Transaction Input Controls

Transaction Embedded Widgets

Offline Transactions Capabilities

Use Case

Questions
Signature Capture Widget
Survey Widget

Connect to a database or Survey Monkey or Survey Gizmo (via web services)
### Transactional grid

<table>
<thead>
<tr>
<th>Customer</th>
<th>Customer Address</th>
<th>Customer City</th>
<th>Customer State</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barton</td>
<td>Vic 1610 Van Buren St</td>
<td>Gretna</td>
<td>Louisiana</td>
<td>70053</td>
</tr>
<tr>
<td>Borrelli</td>
<td>Garland 6498 Lowry Dr</td>
<td>Glenwood</td>
<td>Illinois</td>
<td>60425</td>
</tr>
<tr>
<td>Dale</td>
<td>Barbara 9631 52nd Ave</td>
<td>Caldwell</td>
<td>Idaho</td>
<td>83605</td>
</tr>
<tr>
<td>Eldridge</td>
<td>Edgardo Knappville Rd</td>
<td>Leominster</td>
<td>Massachusetts</td>
<td>01453</td>
</tr>
<tr>
<td>Faschan</td>
<td>Kiyohiko Huddson House</td>
<td>Memphis</td>
<td>Tennessee</td>
<td>38122</td>
</tr>
<tr>
<td>Gaudette</td>
<td>Damiah 18780 29 Mile Rd</td>
<td>Wellsboro</td>
<td>Pennsylvania</td>
<td>16901</td>
</tr>
<tr>
<td>Hellofs</td>
<td>Shannon 6451 Denny Ave</td>
<td>Pasadena</td>
<td>California</td>
<td>91106</td>
</tr>
<tr>
<td>Mccahan</td>
<td>Daryll 15 E Kirby St</td>
<td>Sugarland</td>
<td>Texas</td>
<td>77478</td>
</tr>
<tr>
<td>Johnson</td>
<td>Douglas 186 S Stat</td>
<td>Boston</td>
<td>Massachusetts</td>
<td>02127</td>
</tr>
<tr>
<td>Schroeder</td>
<td>Claudette 409 Colorado Blvd</td>
<td>Boston</td>
<td>Massachusetts</td>
<td>02127</td>
</tr>
<tr>
<td>Starbard</td>
<td>Ronny 120 8th St E</td>
<td>Arlington Heights</td>
<td>Illinois</td>
<td>60005</td>
</tr>
<tr>
<td>Thurman</td>
<td>Hans 7345 Sutton Rd</td>
<td>Atlanta</td>
<td>Georgia</td>
<td>30383</td>
</tr>
<tr>
<td>Trunbar</td>
<td>Agatha 8329 Burton Ave</td>
<td>Boston</td>
<td>Massachusetts</td>
<td>02125</td>
</tr>
<tr>
<td>Werhan</td>
<td>Jewell 409 Lufberry Dr</td>
<td>San Francisco</td>
<td>California</td>
<td>94105</td>
</tr>
</tbody>
</table>
Photo Uploader Widget
Enhanced Photo Uploader Widget

Allow users to upload multiple photos and choose image quality, size.

Options to change image quality

Options to upload multiple photos

Options to pre-define camera.
Enhanced Photo Uploader Widget

Photo widget uploads photos to file server

Inspection photos

Transaction

Writes

Reads
Provides a structure to group and organize your transaction input controls. The table grouping can be placed in a dynamic pop up info window/view.
Transaction Table Object

Development Object
Transaction Table Object

User View
Introduction

What is a workflow app?

Transaction Services Component Objects

Transaction Input Controls

Transaction Embedded Widgets

Offline Transactions Capabilities

Use Case

Questions
Offline mode
Cache Documents on the Mobile Server
Offline mode

Submitting transaction, getting continue confirmation
Offline mode

Warning - Write-Back added to queue
Offline mode

Alert badges indicated pending transactions in queue
Offline mode

Transactions queue detail
**Offline mode**

Reconnected - Pending transactions queue submitted/cleared

![Image of an iPad displaying a store inspection app with fields for inspection items and ratings]
Smart Transactions

Offline Transaction Services with Smart Client
Smart Transactions

Local Transaction Services
Smart Transactions

Offline Workflow
Agenda

Introduction

What is a workflow app?

Transaction Services Component Objects

Transaction Input Controls

Transaction Embedded Widgets

Offline Transactions Capabilities

Use Case

Questions
Use Case: Corporate Request Center

Landing Screen
Use Case - Corporate Request Center

Purchase Order Approvals
Use Case - Corporate Request Center

PDF Report Reader
Use Case - Corporate Request Center
Supporting Analysis/Report Visualization
Use Case - Corporate Request Center

Time Off Approval

Pending Time Off

- All Requests
- Bishop
  - December 23 to January 3
  - Total Days: 5 days
  - #180101

Gregory Bishop (5 days)

- Vacation: 3 days (December 23 to December 27)
- Vacation: 2 days (January 2 to January 3)

Requestor Comments
Use Case - Corporate Request Center

Comments
Use Case- Corporate Request Center

Submission Confirmation
Use Case - Corporate Request Center

Empty Approvals Input

No items are pending your approval.
Please go back and select a different queue.
Or click refresh below.
Introduction

What is a workflow app?

Transaction Services Component Objects

Transaction Input Controls

Transaction Embedded Widgets

Offline Transactions Capabilities

Use Case

Questions
Thank you