



IBM Sterling Commerce (Web) Call Center UI Architecture

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Key Design Goals

Implement IBM Standards

OneUI, IDX toolkit,
Globalization,
Accessibility

Focus on User Experience

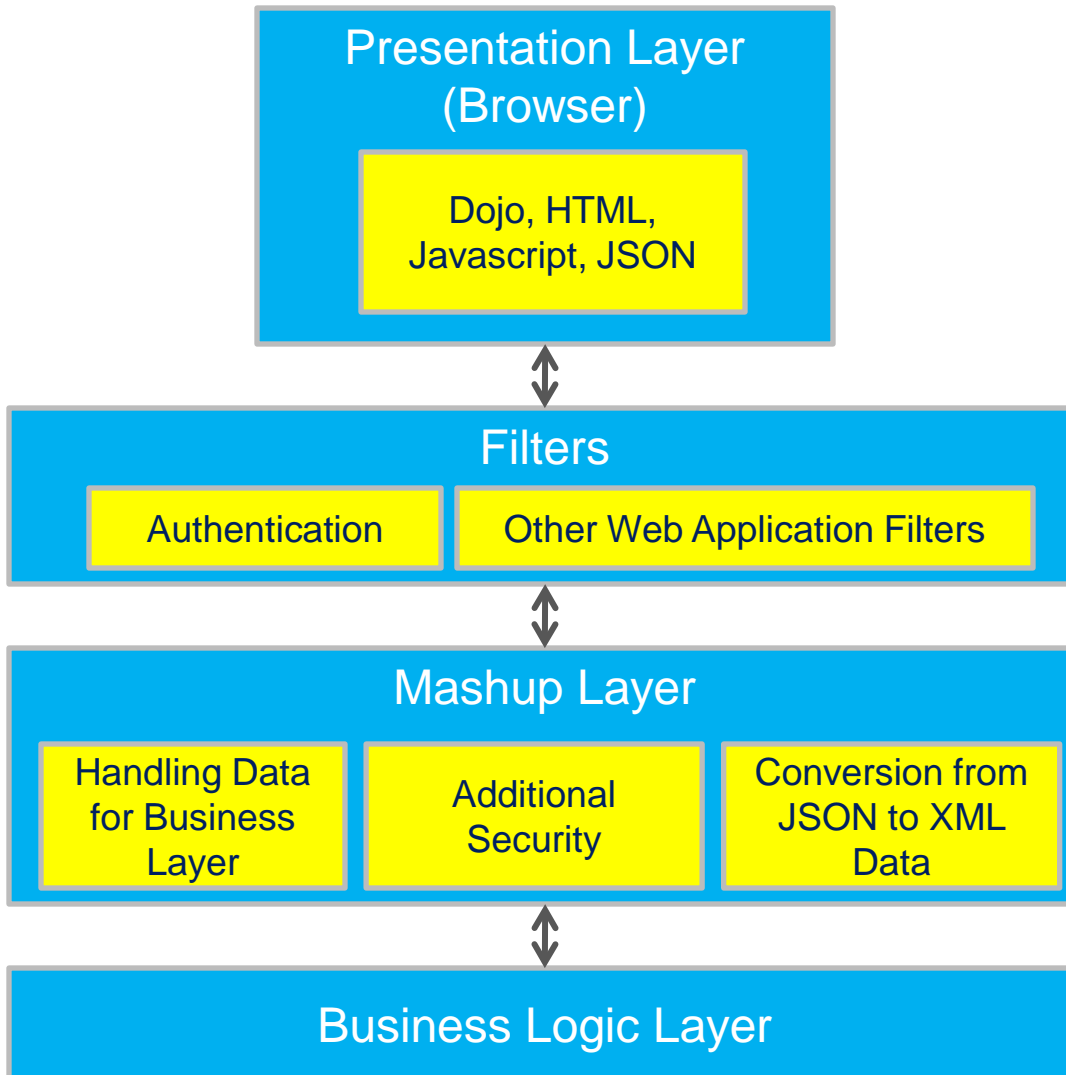
Retain the strengths of the RCP application

Usability, Task-based design,
quick ramp up, reduce call time

Incorporate Customer Feedback

Focus on Extensibility

Architecture Layers

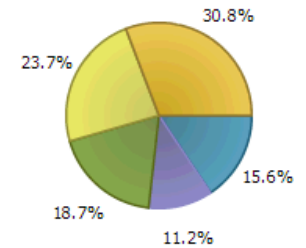
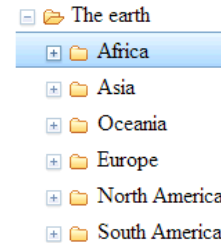


- **Presentation Layer**
 - Dojo/JS/HTML/XML/JSON
 - Runs in a IE, Firefox, Chrome, or Safari
- **Filters**
 - Authentication
 - Other Application Filters
- **Mashup Layer**
 - Authorization
 - Handling data between presentation and business logic layers
 - Conversion from JSON to XML Data
 - Additional security
- **Business Logic Layer**
 - Application specific Business Logic through exposed APIs

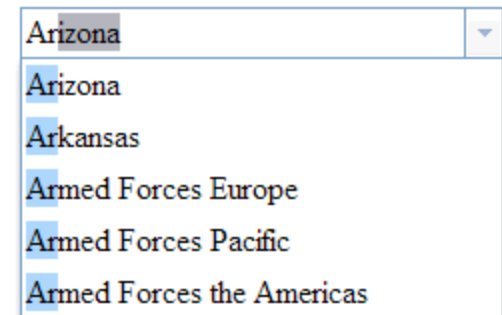
Web 2.0 Presentation Layer

Dojo

- Cross-browser Javascript library
- Easily build sophisticated user interfaces with advanced UI interactions:
 - ▶ Auto Text Complete
 - ▶ Asynchronous and Synchronous server calls (Ajax)
 - ▶ Drag/drop
 - ▶ Rich widgets like currency editor, calendar selection, tree, many more.
- High-performance
- Customizable
- IBM's future for all web-based applications
- Other libraries can co-exist
- Includes inherent globalization and accessibility features



Index	Date	Last Played (editable)	Year (editable)						
1	1923/6/9	04:32 AM	2003						
2	1947/12/6	03:47 AM	1993						
3	December		1992						
4	S	M	T	W	T	F	S	AM	1992
5	10	1	2	3	4	5	6	PM	1968
6	7	8	9	10	11	12	13	AM	1999
7	14	15	16	17	18	19	20	AM	1991
8	21	22	23	24	25	26	27	AM	1977
9	28	29	30	31	1	2	3	PM	2004
10	4	5	6	7	8	9	10	PM	1991
11	1946	1947	1948	PM	1991				



Web 2.0 Presentation Layer (cont.)

◁ HTML 5

- Improved caching and locale storage
- HTML 5 Messaging for web application integration

Server Side Technologies

- ⦿ Based on standard frameworks to build Java web applications
 - Servlets
 - Web Application Filters
 - Designed so other technologies such as struts can be “plugged in.”
- ⦿ Thin mashup layer between business logic and presentation layer
 - Encapsulates server logic
 - Provides additional security
 - Provides **end points** to direct certain calls to specific servers
 - Conversion of XML data to JSON objects that are used client side
- ⦿ Out of the box, ALL business logic achieved through IBM Sterling standard APIs.

Fully Extensible User Interface

- ⦿ Major focus on allowing customers to extend the UI
- ⦿ Simple extension environment setup
- ⦿ Reduced proprietary knowledge required to extend
- ⦿ Two modes of extensibility:
 - **Full**
 - ▶ Incorporate new custom screens
 - ▶ Copy and/or replace out of the box screens
 - ▶ Open out of the box screens from custom screens
 - ▶ Etc.
 - **Differential**
 - ▶ Add components and logic to out of the box screens without copying the entire screen. Only differential extension is saved – **you only own the extensions.**
 - ▶ Makes upgrade easier as out of the box screen can be updated while leaving the customizations in place.

Extensibility Workbench

IBM Call Center for Commerce Search Product Beverly Jones

Test Screen Home Order Search Order TestOrder

Home BiDi - Left to Right
BiDi - Right to Left
Customize
UI Docs

Order

Order Number:

Email address starts with:

Customer

Customer type: Business Consumer

Organization:

Telephone:

Email address starts with:

Return

Return number:

Product

Alert

Assigned Alerts

Alerts For Followup Today (0)
My Assigned Alerts (0)

Alerts By Queue

Alerts By Type

Related Tasks

Order

- Order Search
- Create Order

Customer

- Customer Search
- Create Consumer
- Create Business

Alert

- Alert Search
- Create Alert

Product

- Product Browsing

Return

- Return Search
- Create Return

User

- User Search
- Create User

Price Match

- Price Match Search

Extensibility Workbench

Test Screen

Home



Home



Customer: I have a question about my order.
CSR: May I have the order number?

Customer: I have a question about one of the products you sell.
CSR: May I have the product ID?



Order

Order Number:

Email address starts with:

Find Order

Product

Find Product

Related Tasks

Order

Order Search

Create Order

Customer

Customer Search

Screen

Layout

Data

Behavior

Problems

Save

Close

Widget Palette

- Button
- Checkbox
- Checkbox List
- Currency Textbox
- Data Label
- Date Textbox
- Filtering Select
- Grid Column
- Hidden Field
- Image
- Label
- Link

Screen Outline

- Screen:orderPortlet
 - Content Pane:portletPanel
 - Content Pane:portletHead
 - Label:portletName
 - Image:portletImage
 - Content Pane:findOrderPa
 - Textbox:txtOrderNo
 - Textbox:1
 - Textbox:Data Label
 - Textbox:
 - Content Pane:pnISear
 - Button:bFindOrder

Textbox: txtOrderNo

- Basic
- Binding
- Layout
- Events
- Accessibility
- Others

Unique identifier: txtOrderNo

Field label: Order Number.

CSS class:

txtOrderNo

Order Number.

- Hide
- Select text on click
- Read only

Resource ID:

Field title:

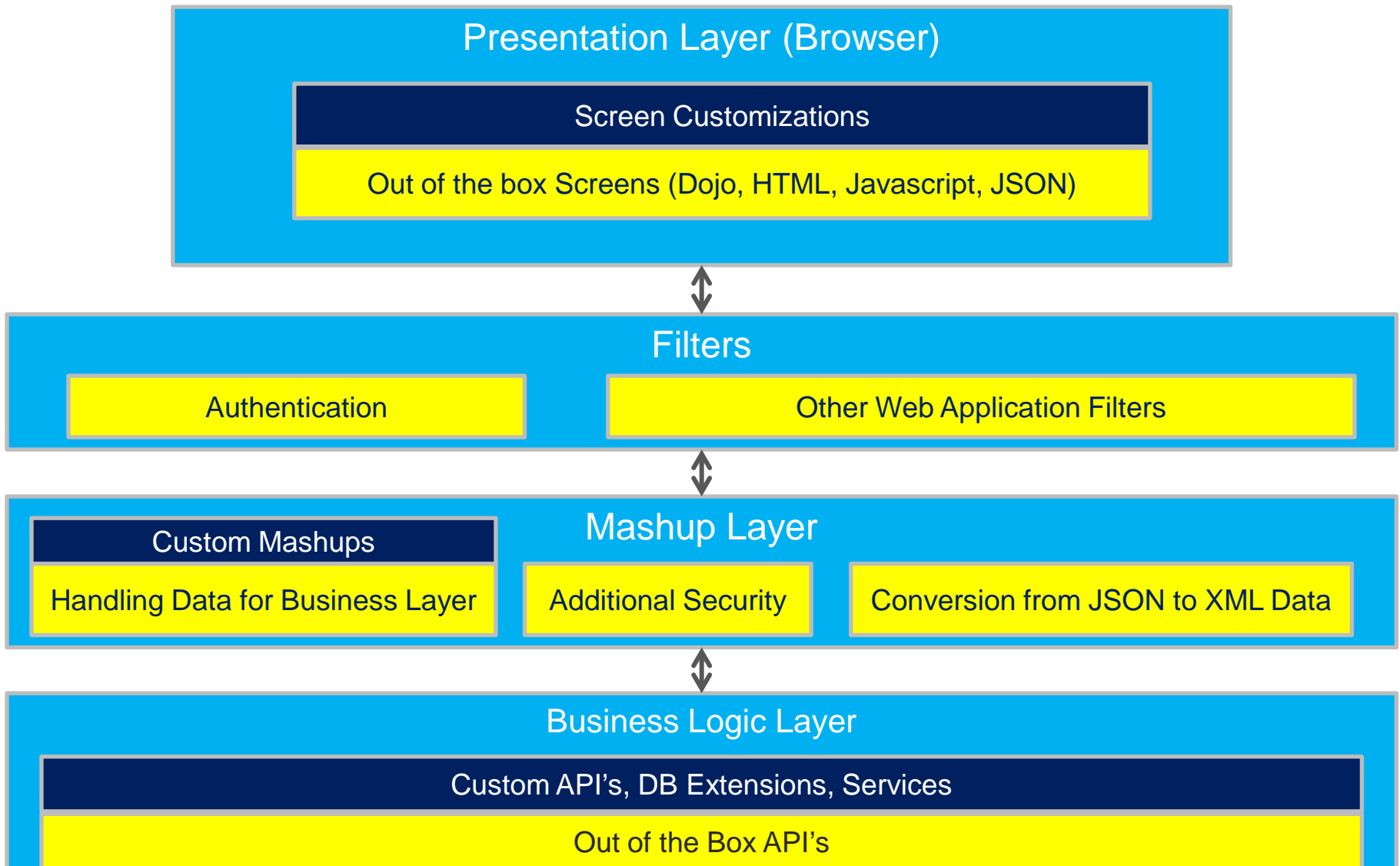
Data type:

DocumentNo

- Exclude from dirty check
- Disable
- Mandatory

Apply

Architecture Extensibility



Storefront Integration

- Integration with other systems to reuse functionality already written in other systems is important.
- Examples of common integration points when creating an order/cart.
 - Embed the entire create cart from storefront.
 - Browse using storefront site.
 - View Product Details
 - Add to cart on website sends the product to cart in Call Center.

Storefront Integration

Call Center

CSR Selects Browse Products

View Product Details

Create order with products populated

Create Order

Fulfillment screens of Order Entry

Custom Code

Create Iframe pointing to browse URL.

Create Iframe pointing to URL for specific product.

Receive message, start create order flow.

Create iframe pointing to the browsing screen.

Receive message, jump to fulfillment/payment summary screen for the order..

Send message to call center.

Send message to call center.

Storefront

Browse Screen

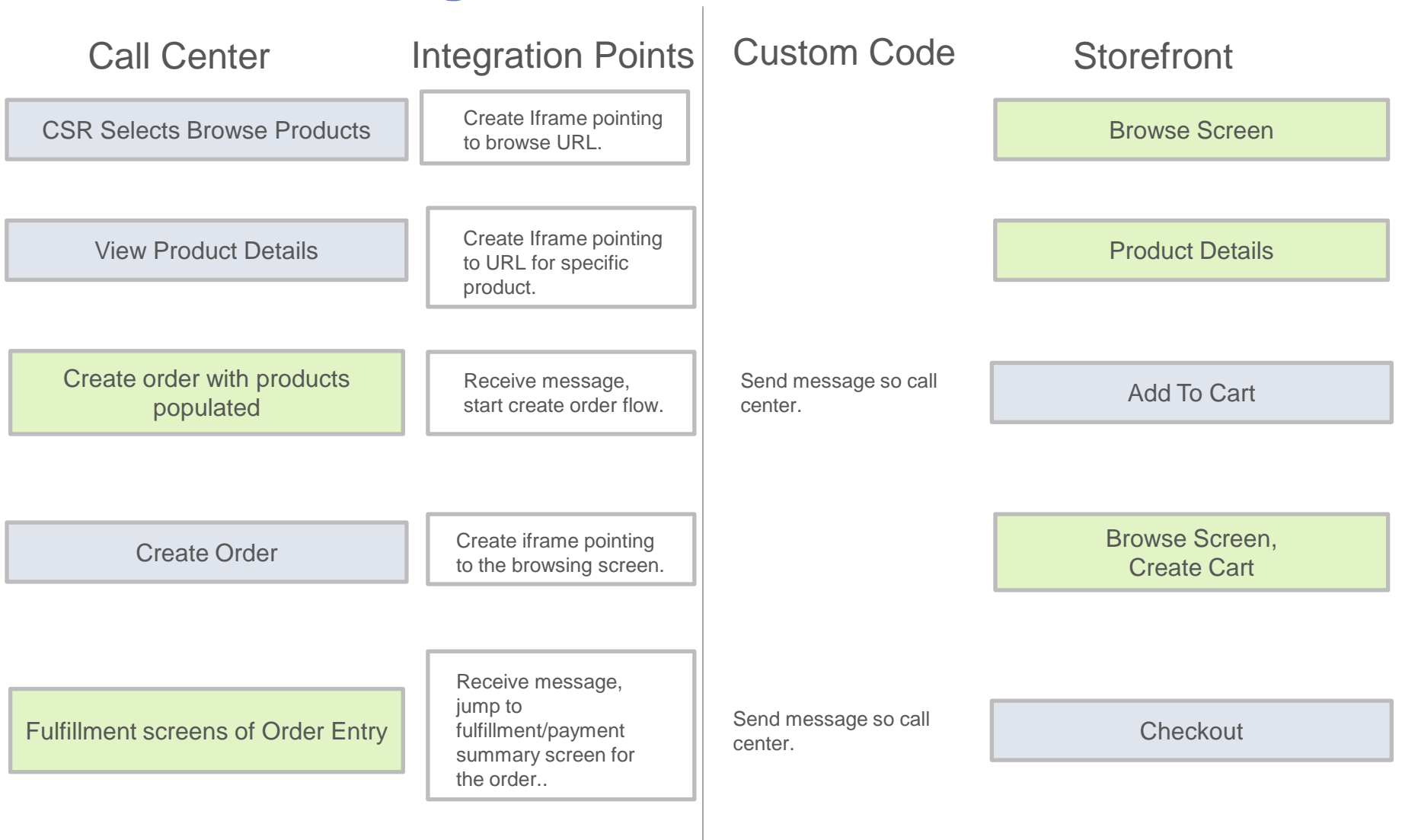
Product Details

Add To Cart

Browse Screen, Create Cart

Checkout

Storefront Integration Points



HTML 5 Web Messaging

- ⦿ Technology of choice for out of the box integration messaging.
- ⦿ Securely allows cross-document communication in a web browser
- ⦿ Sending frame post text message and targetOrigin.
- ⦿ Receiver frame creates event handlers which scan for targetOrigin to ignore unknown/false messages.