Architecting Web Solutions

in Salesforce Marketing Cloud

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Let’s talk

1. Web Studio 101
2. AMPScript vs SSJS in Web Studio
3. Web Studio Patterns
    a. Landing Page
    b. Web Form
    c. Preference Center
    d. Cloud Page App
4. Web Studio Security
5. Q&A

Web Studio 101

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Web Studio 101

Cloud Page

- Standard Landing Page
- Drag & Drop / Code Enabled
- HTML/CSS/JS/AMPScript/SSJS
- Default Wrapper Code
- 1 SuperMessage per load
- Publicly accessible
- SAP branded URL
- Ignore WYSIWYG Preview…
- Ignore Pre-Publish Preview…

Code Resource *

- SFMC-hosted snippets
- Code only
- JS/CSS/JSON/RSS/Text/XML
- But also AMPScript/SSJS
- No Wrapper Code
- 0 SuperMessage per load
- Publicly accessible
- SAP branded URL
- No Preview to ignore ;)

AMPScript vs SSJS in Web Studio

AMPScript

- Simple code
- Good for simple solutions
- Use cases:
  - Personalisation
  - Dynamic content
  - Basic data validation
  - Basic data handling

SSJS

- Complex code
- Good for complex solutions
- Use cases:
  - All of the AMPScript Use Cases
  - Working with Arrays, Objects & Functions
    - Complex Data Validation
    - Complex Data Handling
  - Deployers

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Web Studio Patterns
Landing Page

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Web Studio Patterns - Landing Page - All-in-One

All-in-One

- Single Cloud Page
- Content Blocks or HTML/CSS/JS
- Static information

Example use cases:

- Thank You Page
- Email Decision Handler
- One-Click Unsubscribe Page *

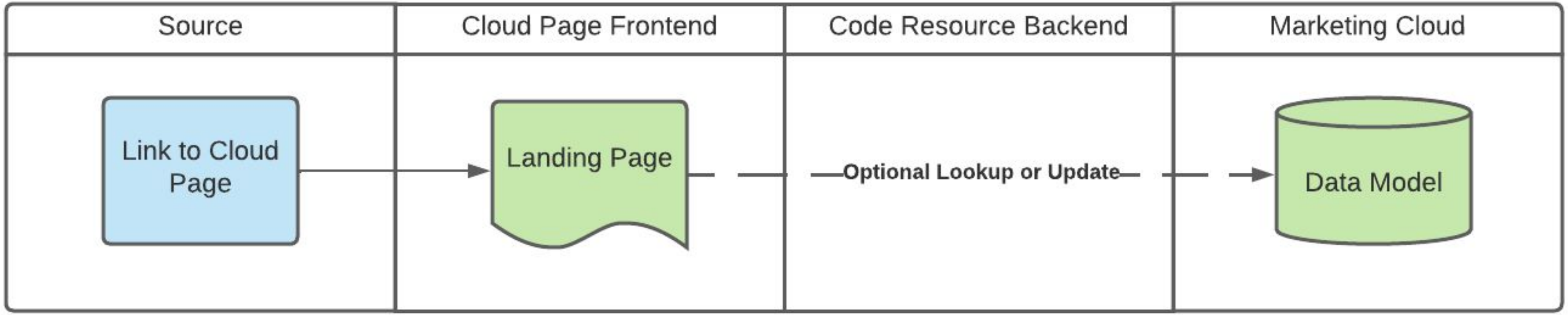
The Good:

- Super simple to create
- Super simple to maintain
- Gets job done

The Bad:

- Labour-intensive global changes (f.e. CSS)

Web Studio Patterns - Landing Page - All-in-One



Web Studio Patterns - Landing Page - Modular

Modular

- Cloud Page + Code Resource(s)
- Content Blocks or HTML/CSS/JS
- Static information

Example use cases:

- Thank You Page
- Email Decision Handler
- One-Click Unsubscribe Page *

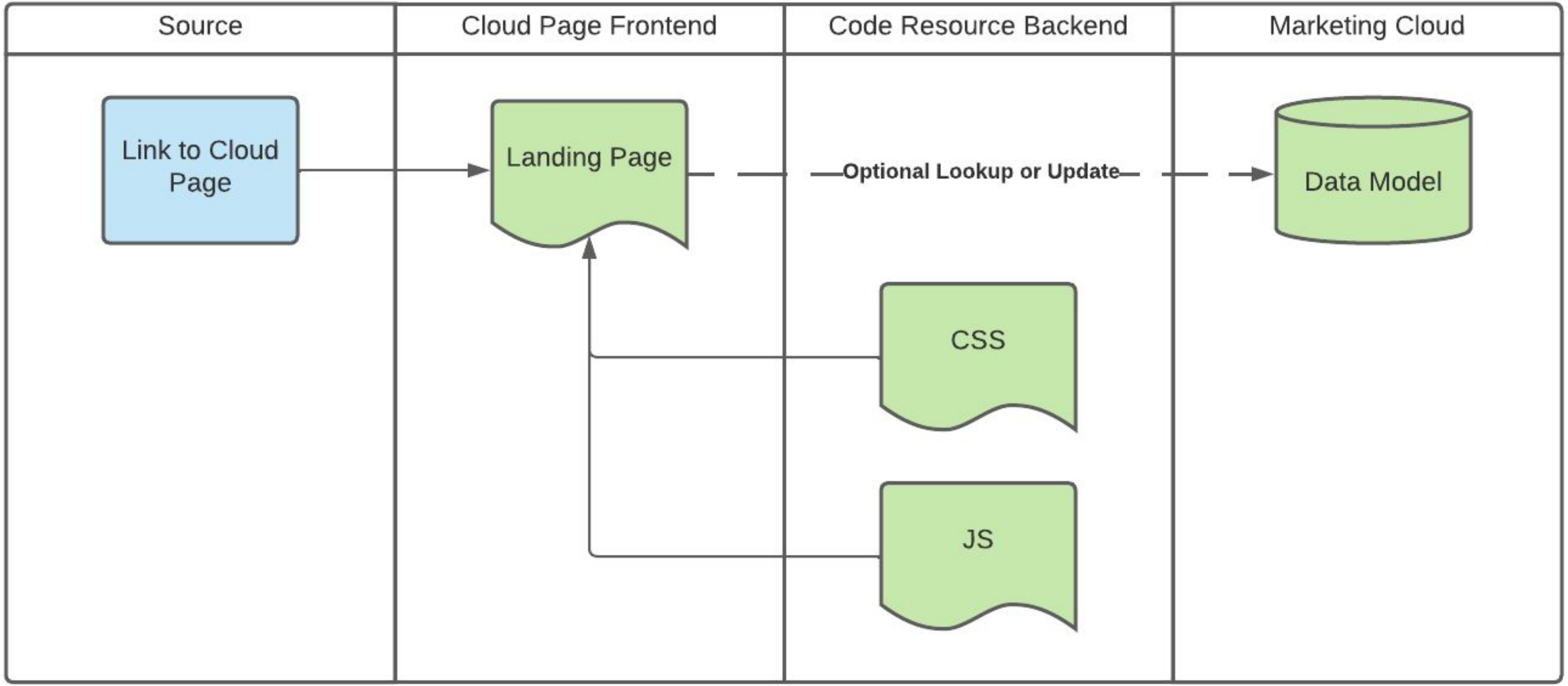
The Good:

- Faster roll-out
- Shared assets make global changes (f.e. CSS) much faster
- Gets job done

The Bad:

- Shared assets require much more complex testing

Web Studio Patterns - Landing Page - Modular



Web Studio Patterns - Landing Page - Redirect

Redirect

- Single Code Resource
- AMPScript or SSJS
- Middleware role

Example use cases:

- Thank You Page
- Email Decision Handler
- One-Click Unsubscribe Page *
- Custom Click Handling

The Good:

- Customer stays on your main website
- Fully fledged tracking on CMS
- Lets you integrate everything with SFMC
- Free

The Bad:

- Requires defensive coding
- Decreases User Experience

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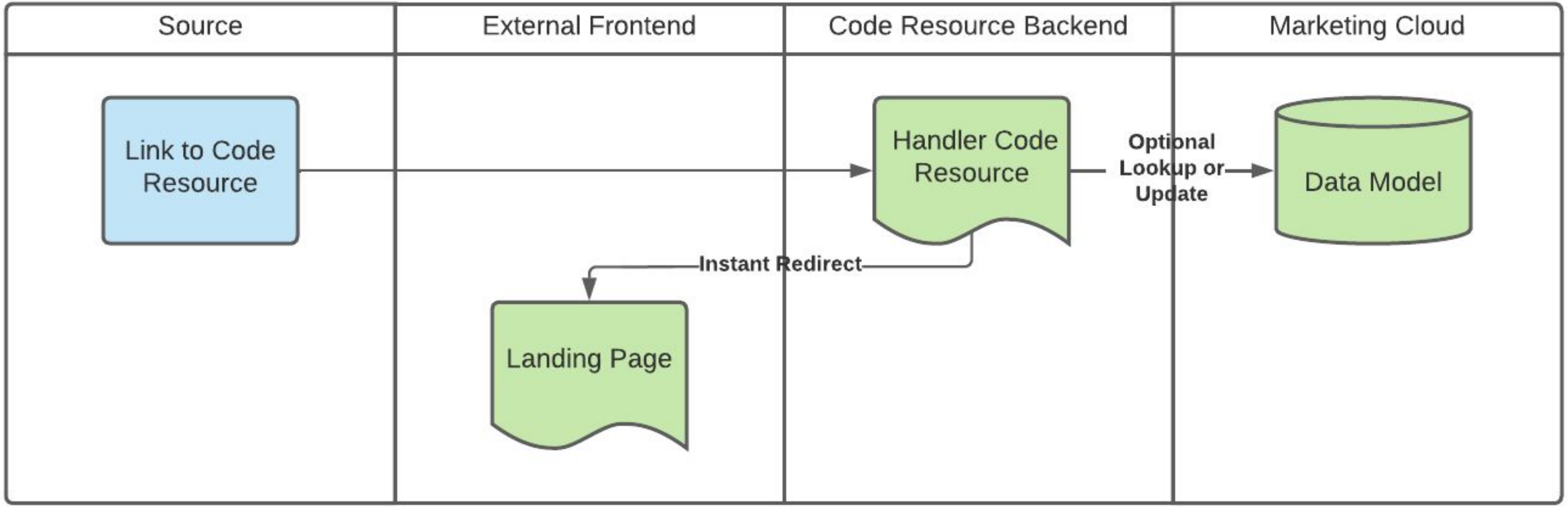
Web Studio Patterns - Landing Page - Redirect



Web Studio Patterns
Web Form

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Web Studio Patterns - Web Form - All-in-One

All-in-One

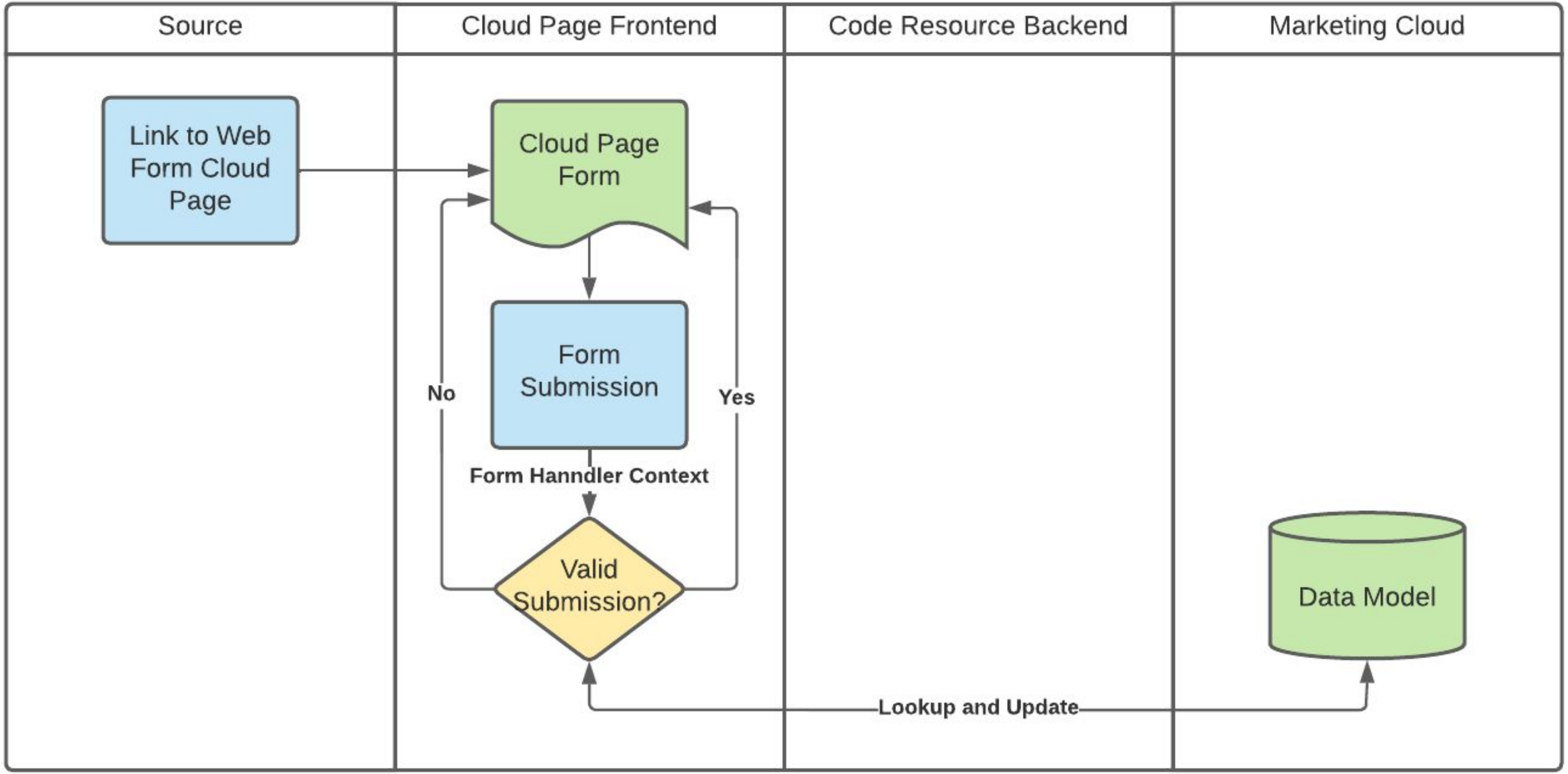
- Single Cloud Page
- Form, Thank You and Error views within one Web Studio asset
- Can be extended with Modular approach (CSS/JS)

The Good:

- One-stop-shop for whole process
- Single URL by default pointing to the Form view

The Bad:

- Multiple SuperMessages per use
- Complex structure due to conditional context scenarios
- Mediocre User Experience



Source

Cloud Page Frontend

Code Resource Backend

Marketing Cloud

Link to Web Form Cloud Page

Cloud Page Form

Form Submission

No

Yes

Form Hanndler Context

Valid Submission?

Lookup and Update

Data Model

Web Studio Patterns - Web Form - One-in-Three$^?$

One-in-Three$^?$

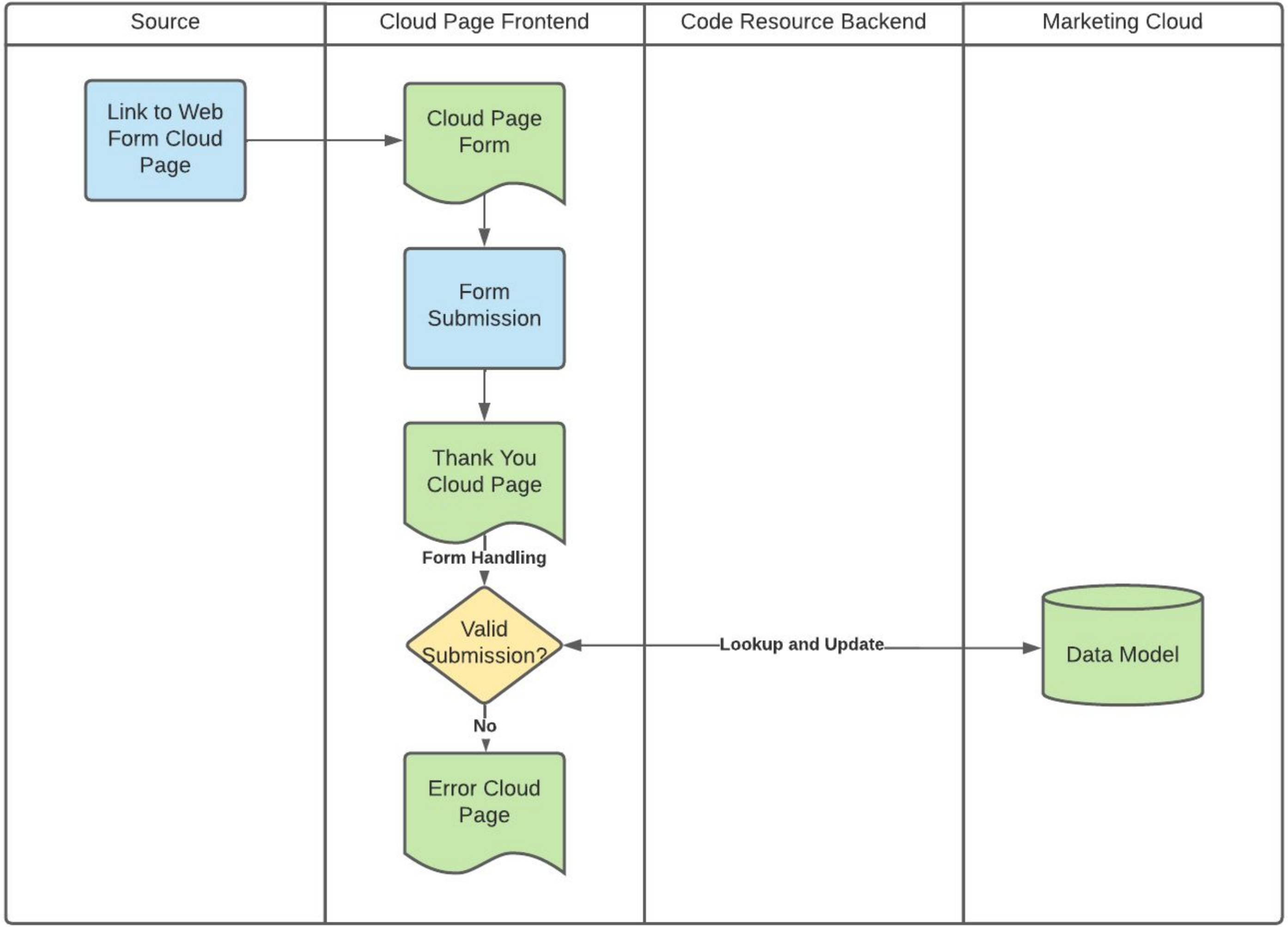
- Multiple Cloud Pages
- Form, Thank You and Error views are separate assets
- Can be extended with Modular approach (CSS/JS)

The Good:

- Very simple code structure
- Views can be reused (for example, universal Error view)

The Bad:

- Multiple SuperMessages per use
- Multiple assets to view to see whole process
- Separate URLs for each step of the process
- Mediocre User Experience



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Web Studio Patterns - Web Form - MVVM

MVVM

- Cloud Page + Code Resource
- Model-View-ViewModel Pattern
  - Cloud Page = View
  - Code Resource = ViewModel
  - SFMC = Model
- Asynchronous SPA with AJAX
- Can be extended with Modular approach (CSS/JS)
- Supports reCAPTCHA

The Good:

- 1 SuperMessage
- Two assets regar views needed
- Separation of con
- Code Resource can be reused
- Good User Experience
- Can integrate external Forms

The Bad:

- Complex to create

SCAN ME

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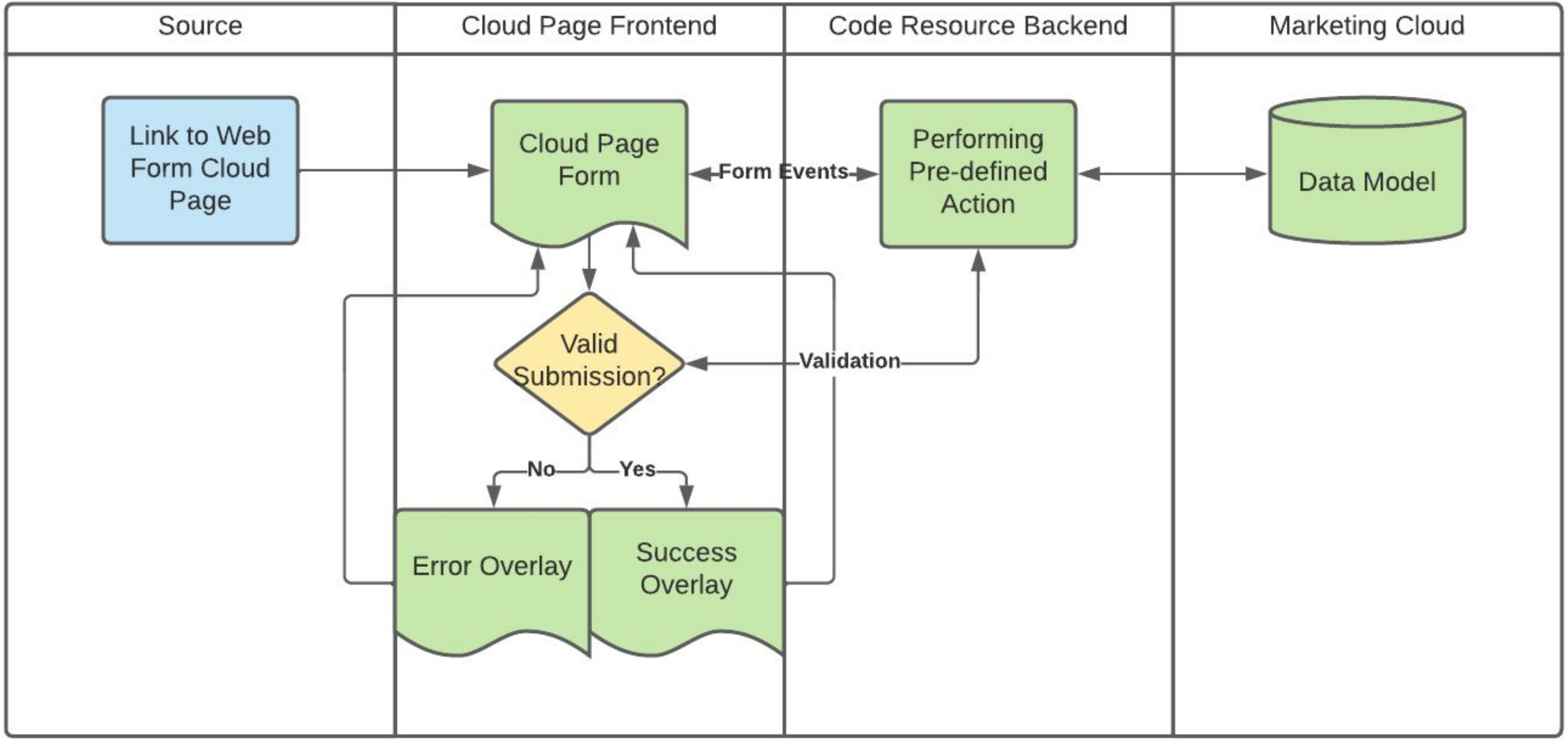
Source
Cloud Page Frontend
Code Resource Backend
Marketing Cloud
Link to Web Form Cloud Page
Cloud Page Form
Form Events
Performing Pre-defined Action
Data Model
Valid Submission?
Validation
No
Yes
Error Overlay
Success Overlay

Web Studio Patterns
Preference Center

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Web Studio Patterns - Preference Center - One-Click

One-Click

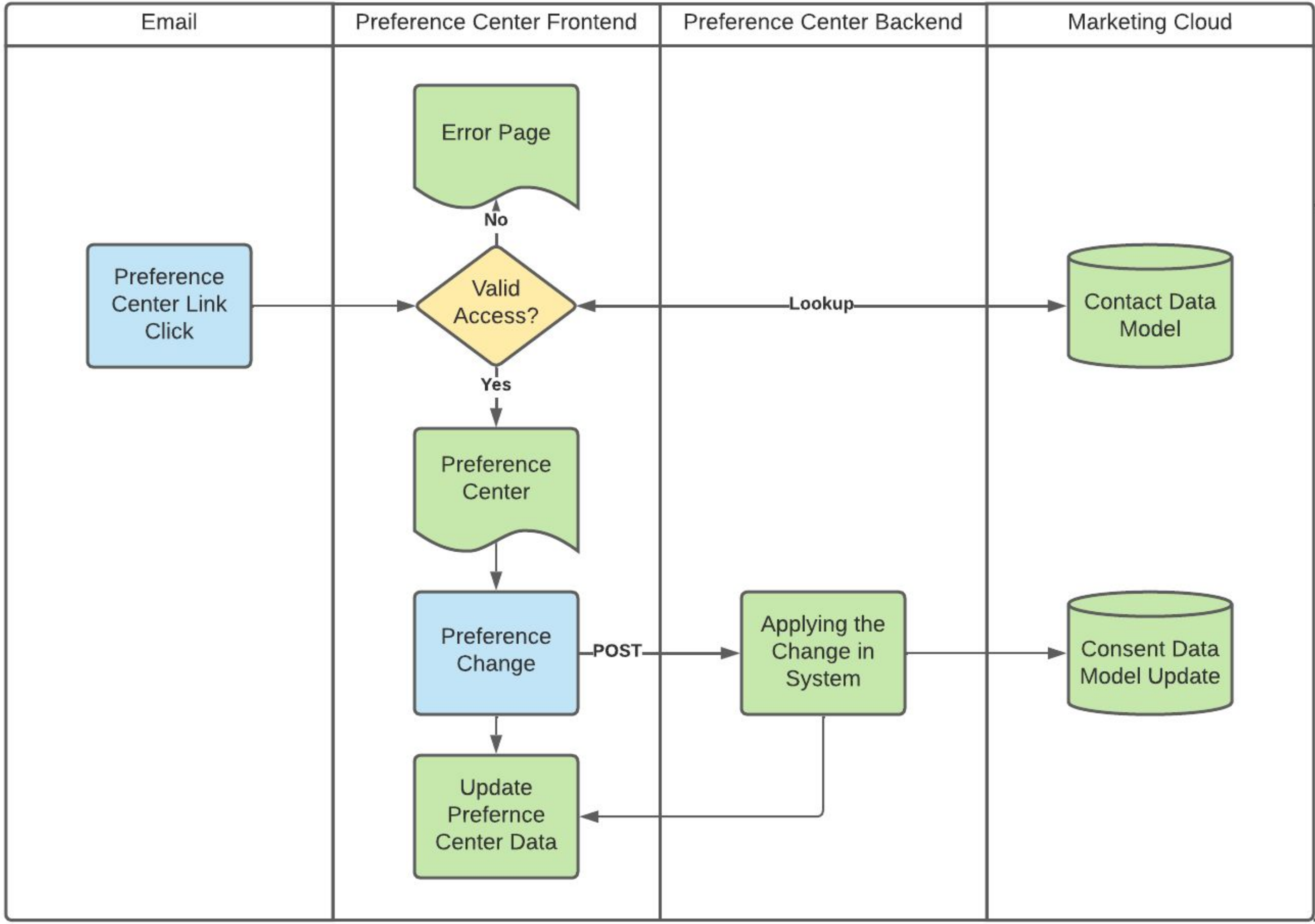
- Can leverage any of the Web Form patterns (All-in-One, One-in-Three, MVVM)
- Complexity varies based on possible actions (subscription / preferences / multi-channel / marketing pressure)

The Good:

- As per selected Web Form pattern
- Simple to build
- Easy to test and debug

The Bad:

- As per selected Web Form pattern
- Requires SF-based data in the URL
- Security


Email
Preference Center Frontend
Preference Center Backend
Marketing Cloud
Error Page
No
Preference Center Link Click
Valid Access?
Lookup
Contact Data Model
Yes
Preference Center
Preference Change
POST
Applying the Change in System
Consent Data Model Update
Update Preferfnce Center Data

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Web Studio Patterns - Preference Center - Secured

Secured

- Can leverage any of the Web Form patterns (All-in-One, One-in-Three, MVVM)
- Complexity varies based on possible actions (subscription / preferences / multi-channel / marketing pressure)
- Requires additional Triggered Send and Data Extension
- Compliance check required

The Good:

- As per selected Web Form pattern
- Can be linked from any source
- Secure

The Bad:

- As per selected Web Form pattern
- Complex to build
- Harder to test and debug

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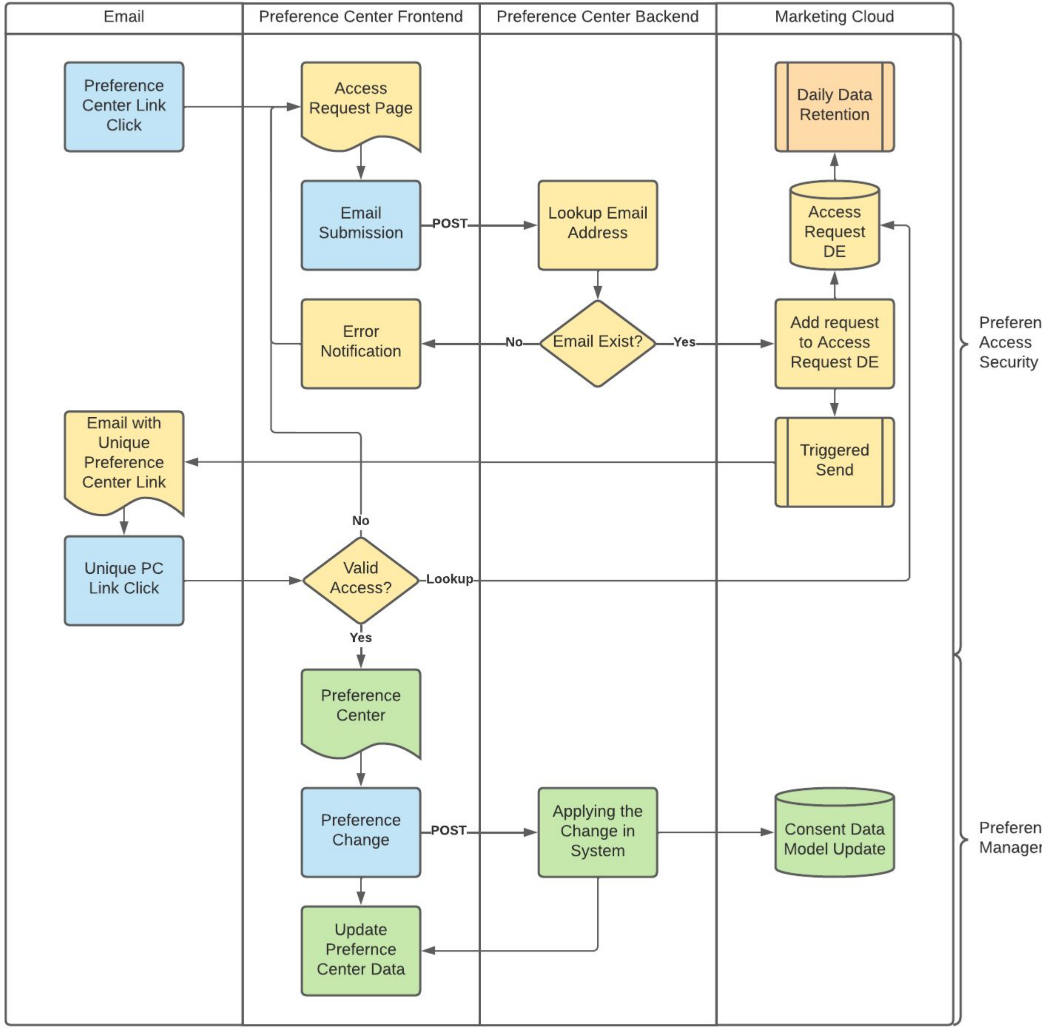

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Web Studio Patterns
Cloud Page App

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Web Studio Patterns - Cloud Page App

Cloud Page App

- Any URL can be added as an “App” to AppExchange menu item in SFMC
- Cloud Page can interact with SFMC
- Can be secured with SFMC SSO

Use Cases:

- Dashboard
- Documentation
- Template-based Generator

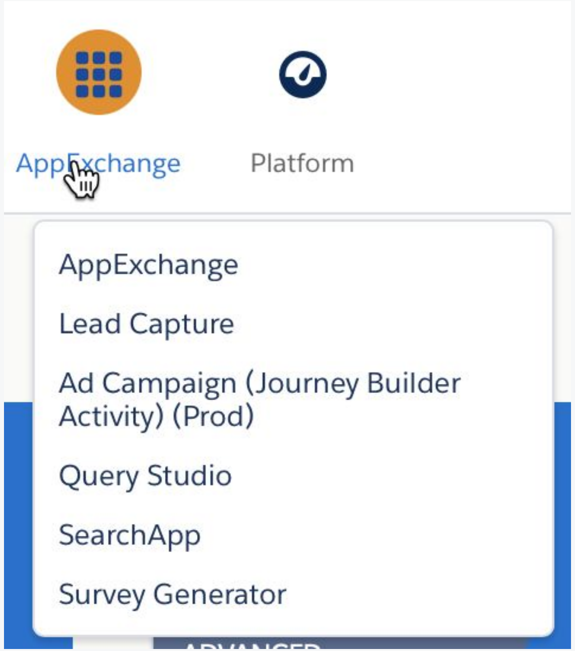
The Good:

- As per selected Web Form pattern
- Super easy way to power up SFMC

The Bad:

- As per selected Web Form pattern
- Non-MVVM approach will use multiple SuperMessages for authentication

Web Studio Patterns - Cloud Page App



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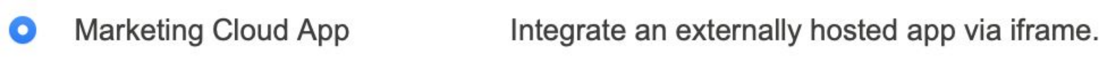

● Marketing Cloud App — Integrate an externally hosted app via iframe.

Web Studio Security

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Web Studio Security

1. **“Security by obscurity”**
   - Server-side character of AMPScript & SSJS
   - Logic based on payload, query parameters with `switch` or `if/else`
   - Method scoping with `Platform.Request.Method()`
2. **Referrer Allowlist**
   - SSJS: `Platform.Request.ReferrerURL()`
   - AMPScript: `HTTPRequestHeader('Referer')`
3. **IP Allowlist**
   - SSJS: `Platform.Request.ClientIP()`
   - AMPScript: `HTTPRequestHeader('X-Forwarded-For')`
4. **Cookies** with `Platform.Request.GetCookieValue('CookieName')`
5. **Verification** with `GUID()` and Data Extension
6. **Cloud Page App SSO**

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Q&A

Let's Connect

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