


Building Yahoo!'s Next Generation Mail



Daniel Hunt

Making Headlines

A photograph of a person reading a newspaper, with a blue text box overlay. The person's eyes are visible above the newspaper. The background is a blurred cityscape with buildings.

"Faster, cleaner and safer Yahoo Mail beta finally lands on your mail box." – Tech News

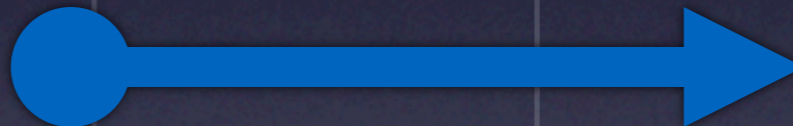
"An overhauled version of Yahoo! Mail has been rolled out as the pioneering Internet firm sought to better integrate trends such as social networking." – Agence France Presse

Another mail ?

1997 Classic



2004 Candygram

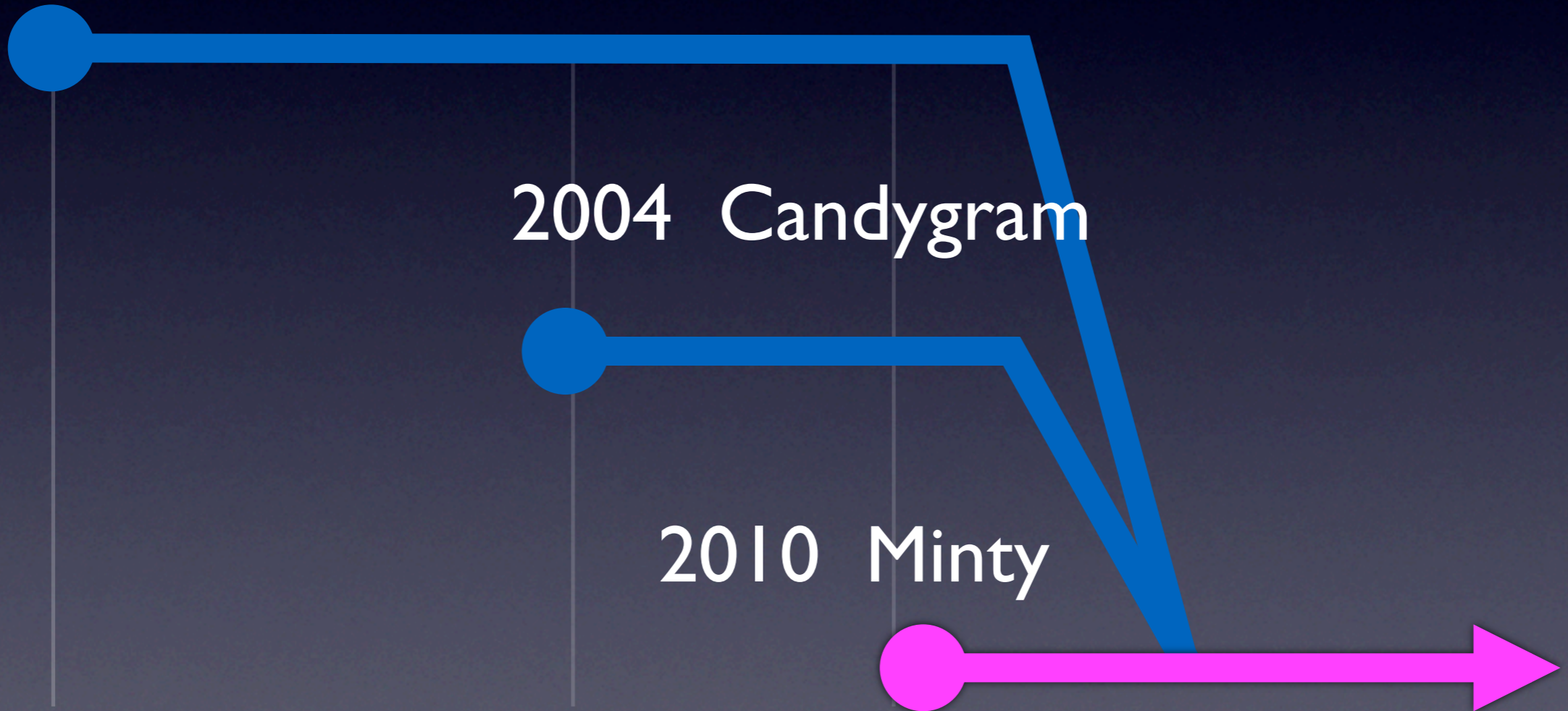


2010 Minty



Convergence

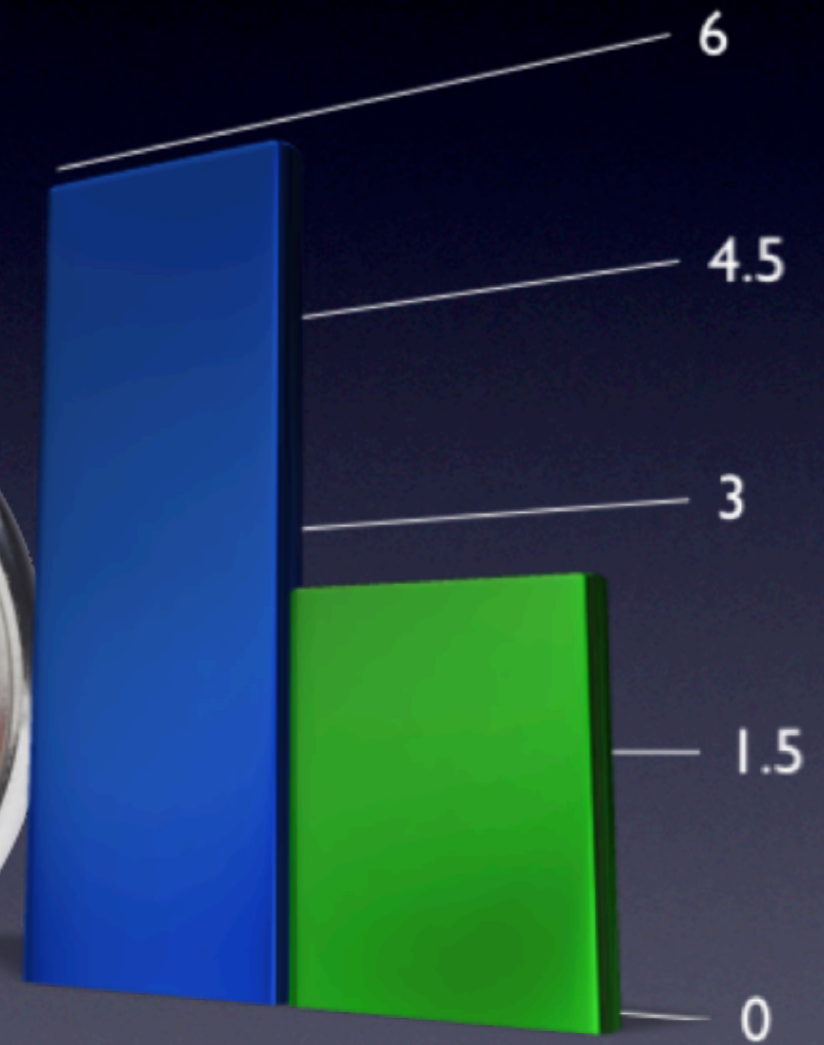
1997 Classic



2004 Candygram

2010 Minty

Speed



Roundtrip

Parallelization

Modularity

Faster to Market

Design to Beta in Just
Eight Months

8

New Design

The screenshot displays the new design of the Yahoo! Mail interface. At the top, a purple header bar contains the user's name 'Hello, Daniel', navigation links for 'Help', 'Sign Out', and 'Send Feedback', and the 'Yahoo!' logo. Below this, the 'YAHOO! MAIL Beta' logo is on the left, and a search bar with 'Search Mail' and 'Search Web' buttons is on the right. A secondary navigation bar features 'WHAT'S NEW', 'INBOX', and 'CONTACTS' tabs. A 'Compose Message' button is located on the left side of the main content area.

The left sidebar shows a list of folders with their respective message counts: Inbox (36979), Drafts, Sent, Spam (1712), and Trash (7). Under the 'Folders' section, there are several sub-folders: autopush (617), candygram (35), cg-folder-test (1), devel-frontend (7373), mail (38), mailtest, my new folderx (13368), neo, neo-the-one (30), neocommits (3272), Notes, perf112 (28), test, test emails, ToDo, and watir.

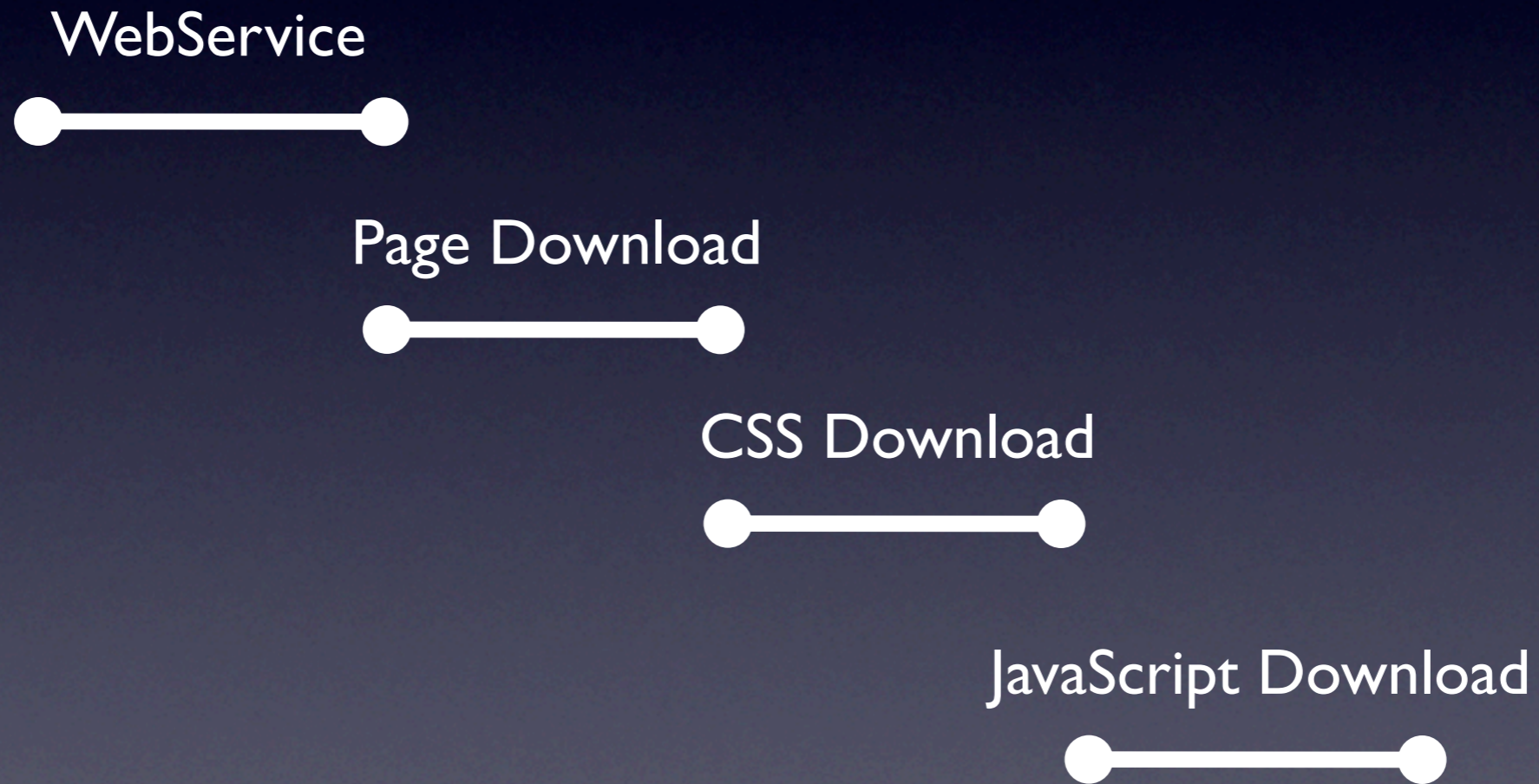
The main content area features a 'Welcome to Yahoo! Mail Beta.' banner with a 'See tips on how it works' link. Below this is a 'Have something to share?' prompt with social media sharing options for Yahoo!, Facebook, and Twitter. A 'TRENDING NOW' section lists ten items, including Heidi Montag, Miley Cyrus, Eddie Murphy, Daylight Savi..., Alzheimer'..., For Colored G..., Emma Watson, Cable TV, SAT Test, and Plane Crashes. A 'Control who you share your updates with.' message with a 'Manage updates settings.' link is also present.

The 'UNREAD EMAILS' section includes a 'GO TO INBOX (36979)' link. The 'FROM YOUR CONTACTS' section shows three contact entries: sureshd@yahoo-inc.com with two unread emails (one about Hudson build instability), ymeng@yahoo-inc.com with two unread emails (one about neo_commit build failure), and jaed@yahoo-inc.com with one unread email about an svn-commit. The 'GET UPDATES FROM' section lists Prathap Varma and Kayvan Kimyal, each with a 'Get Updates' button.

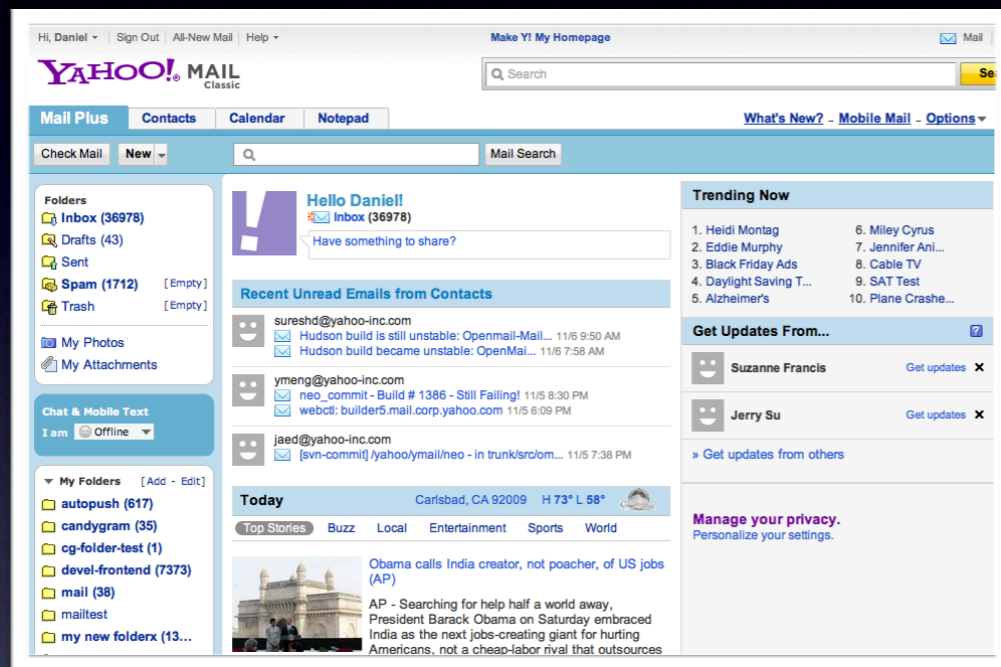
At the bottom, a 'TODAY' section includes links for 'Top Stories', 'Buzz', 'Entertainment', 'Sports', and 'World'.

Parallelization

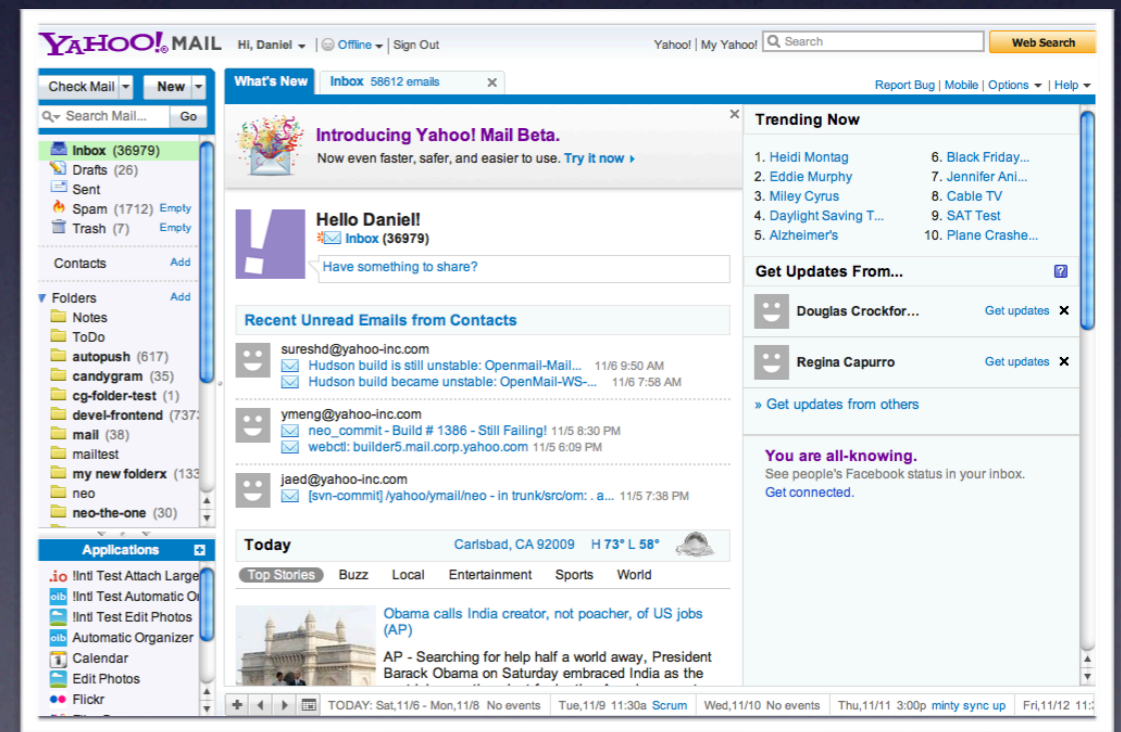
A first impression is everything.



A Tale of Two Products

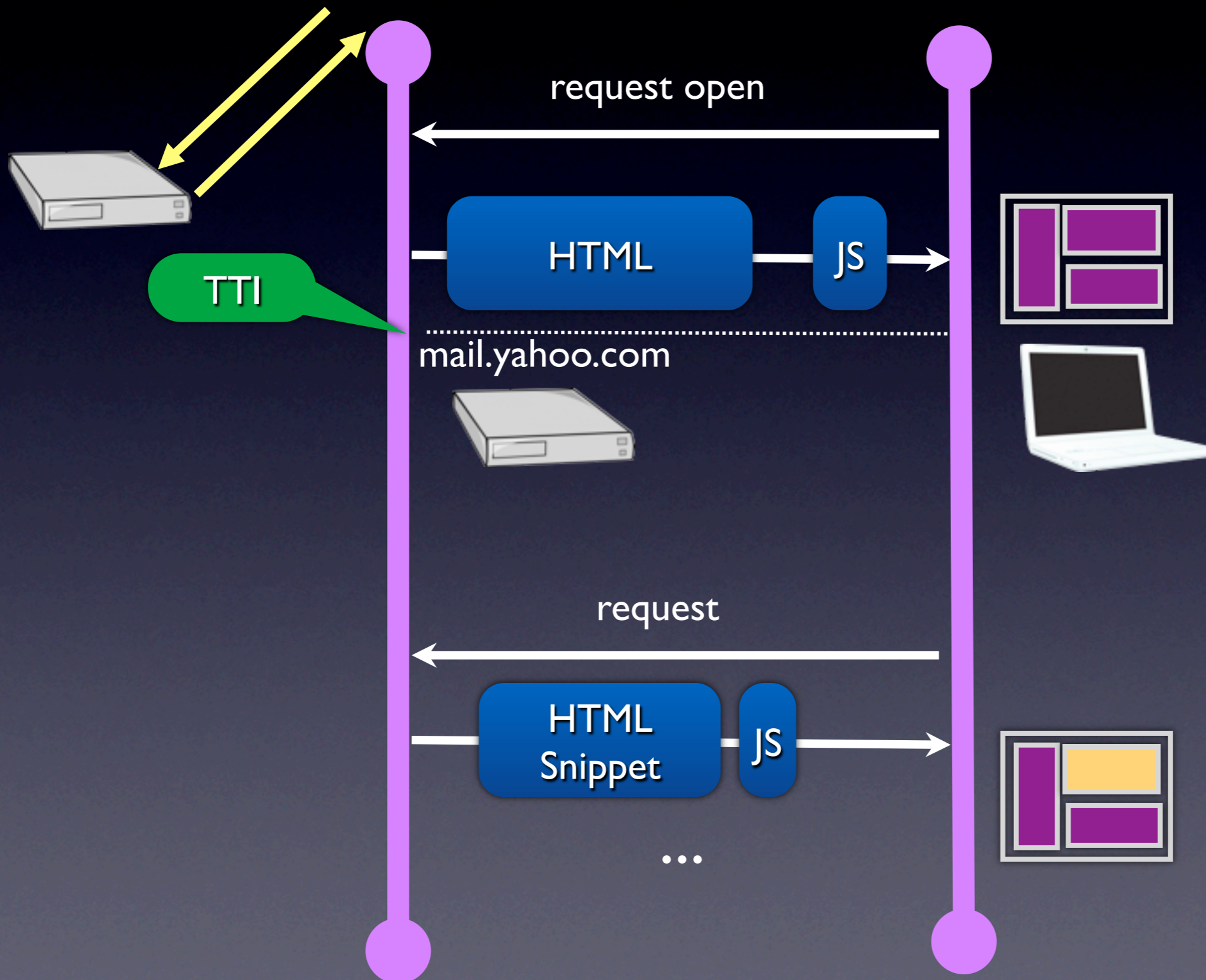


Classic

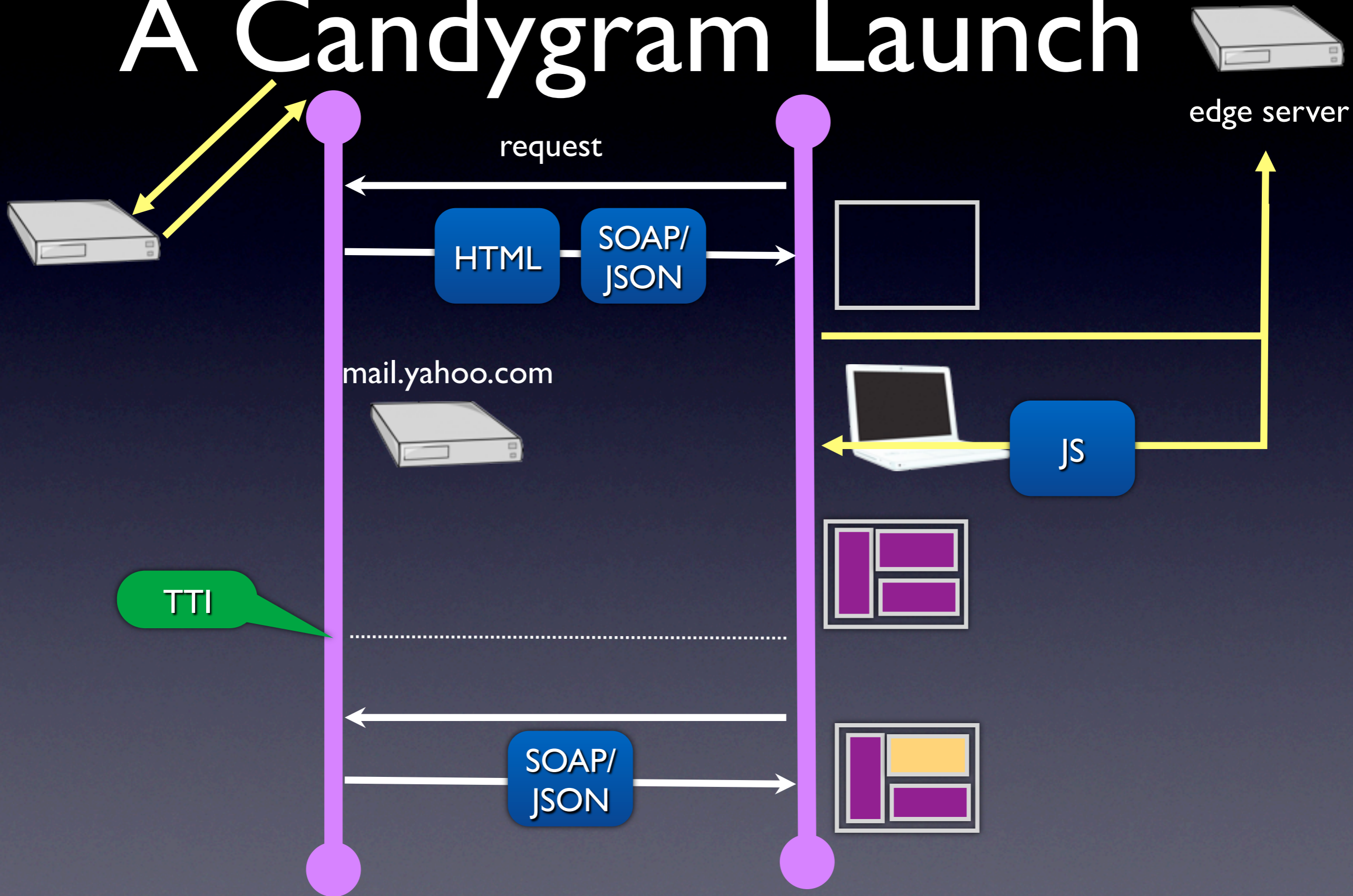


Candygram

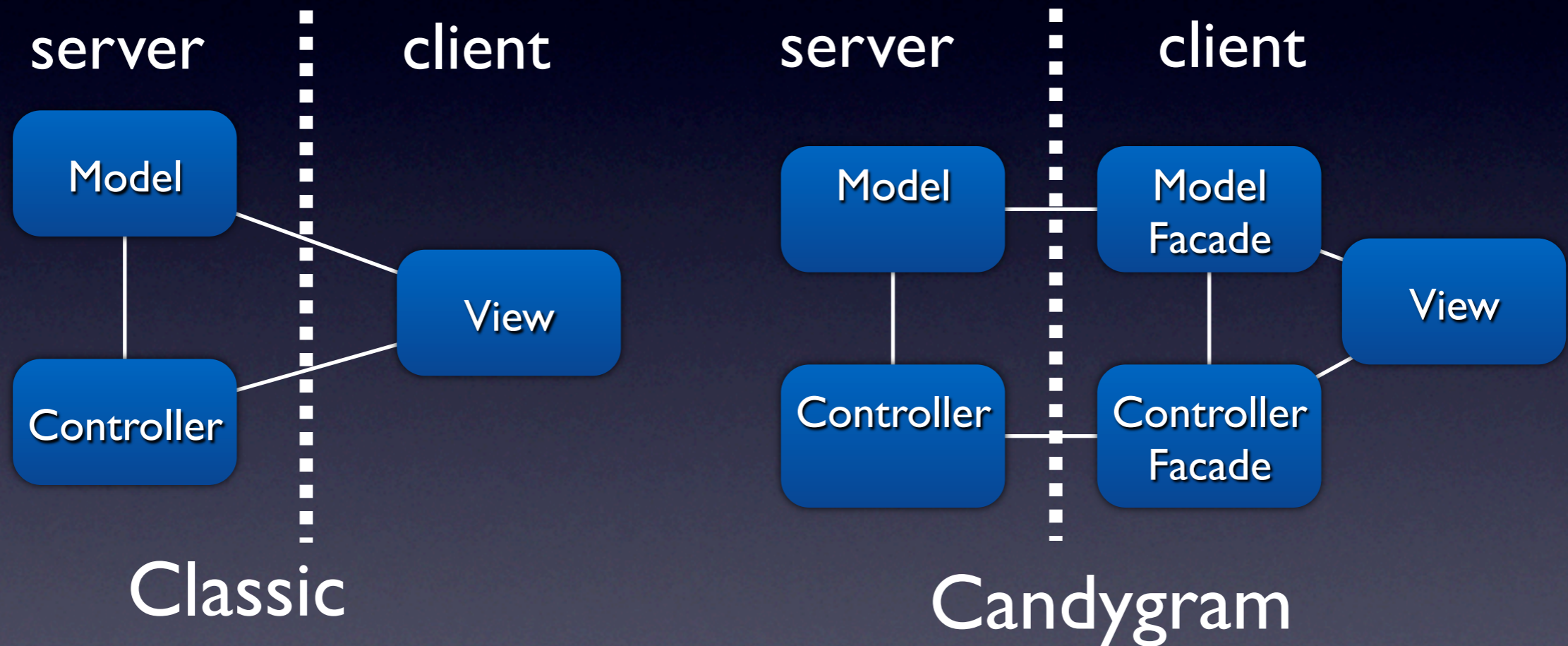
A Classic Launch



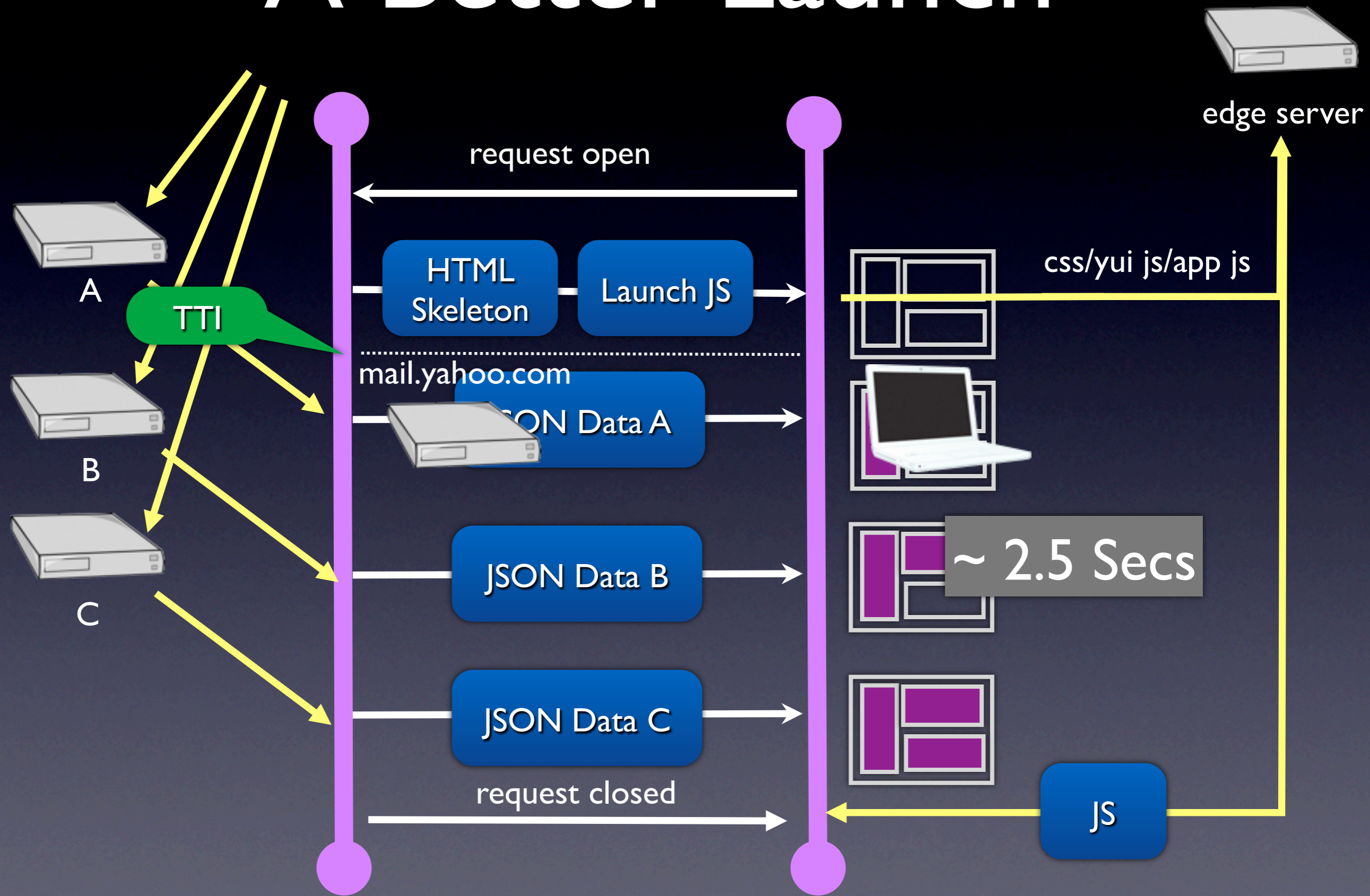
A Candygram Launch



Contrast with MVC



A Better Launch



Modularity

Managing Size with YUI3

Load only what you
need and when you
need it

What is a Module ?

JS

CSS

Template

Strings

Server

Module A

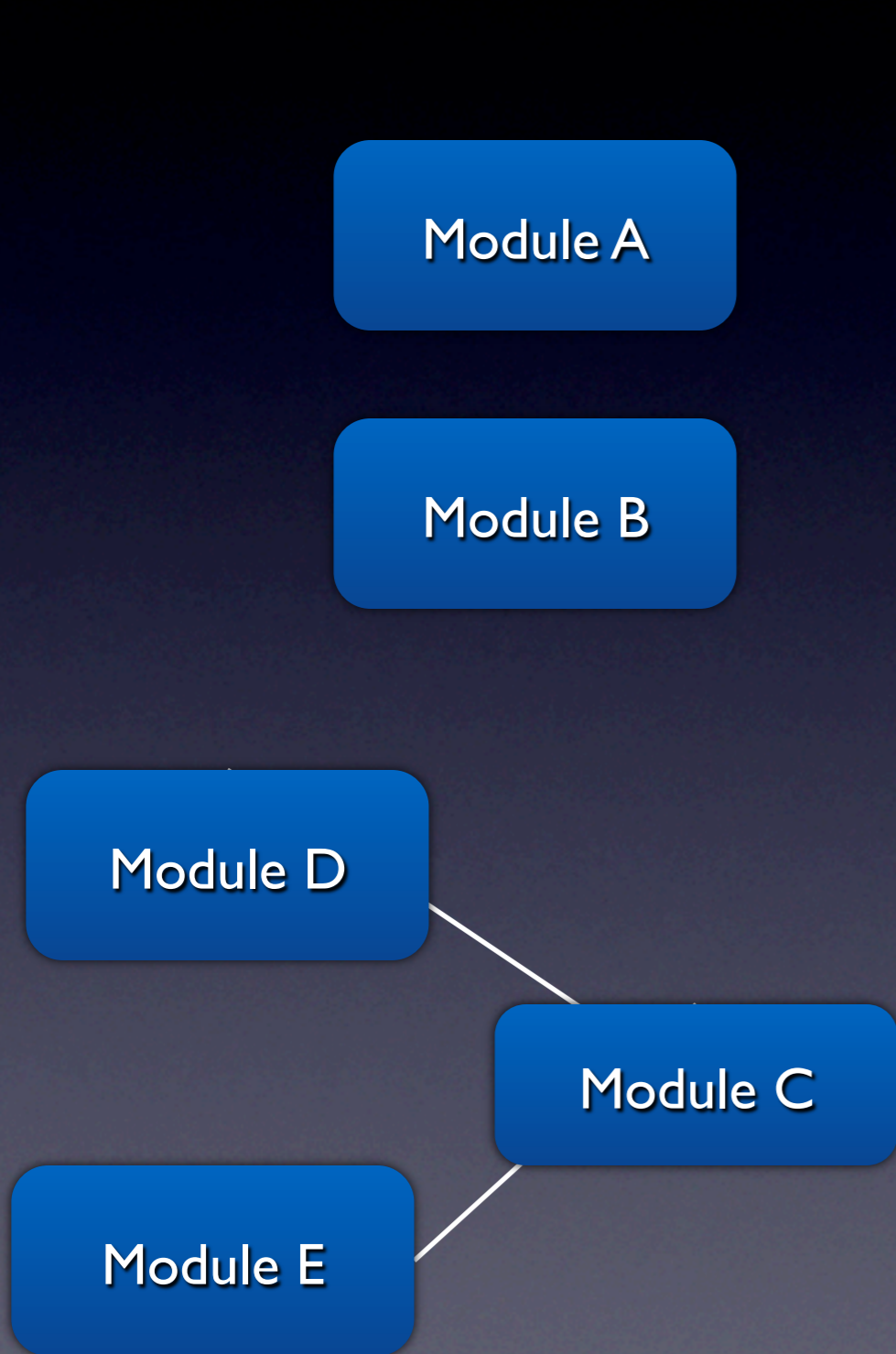
Module B

Module D

Module C

Module E

Client



Our Use of YUI

Overlay

Widget

Rich Text Editor

Tabview

JSON

DataType

Stylesheet

Get

Cookie

DOM

Event

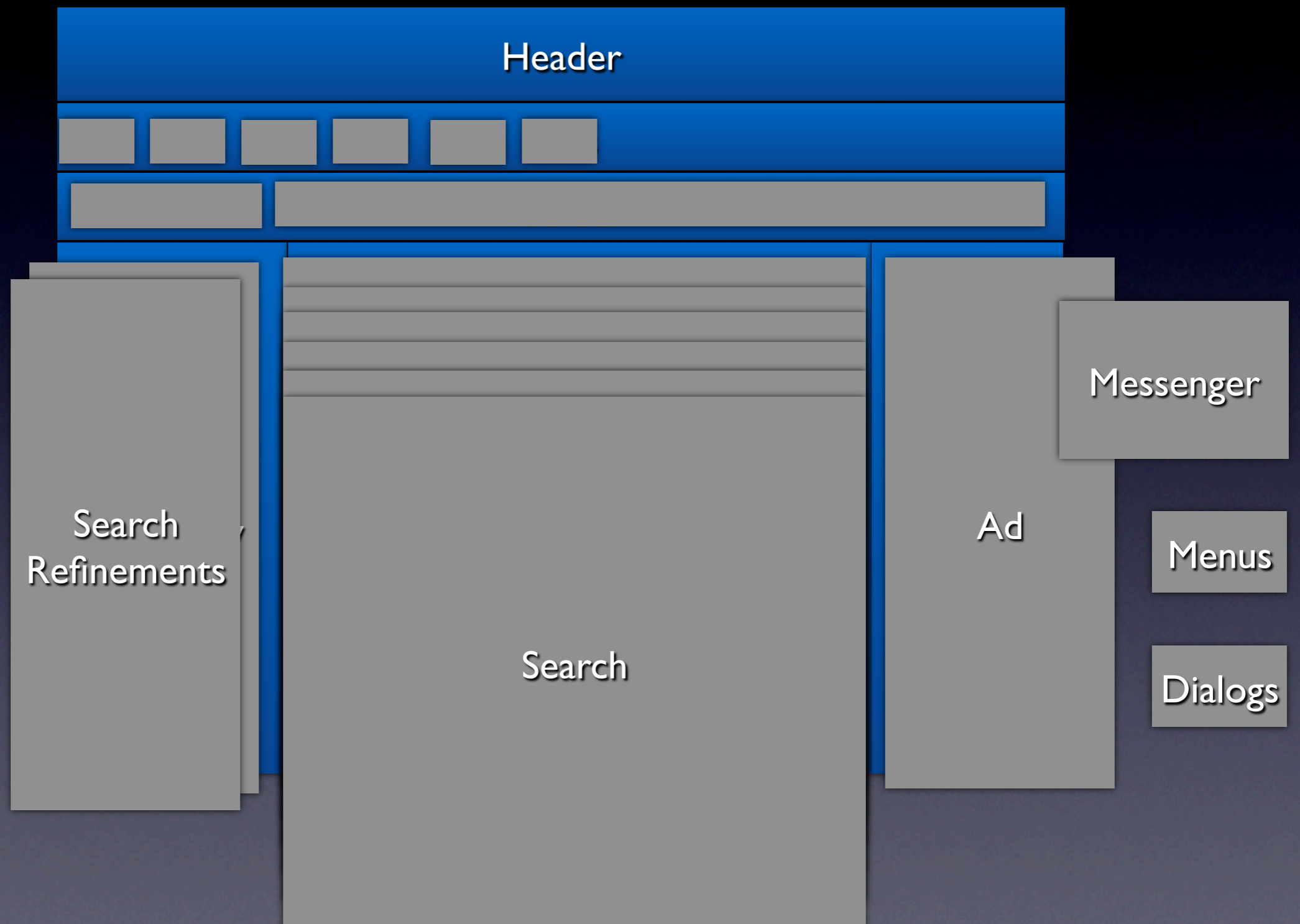
Attribute

Base

Y Module/Loader

Managing Complexity with YUI

Structural Layout

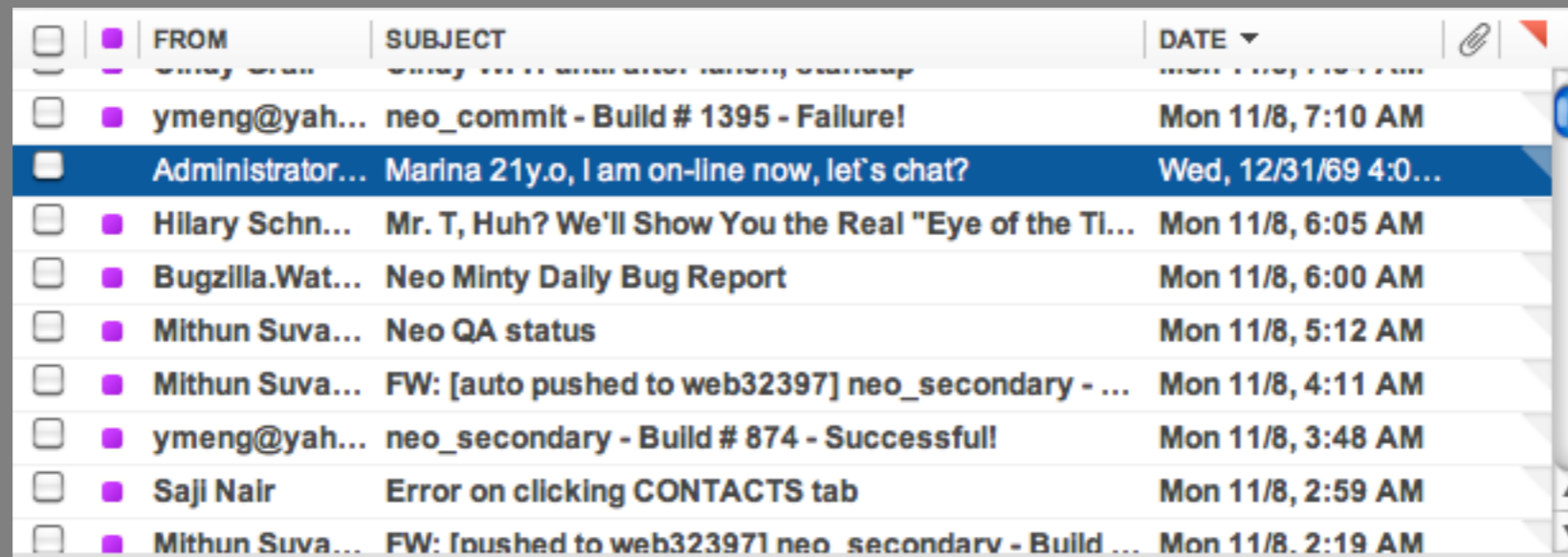


YUI and Custom Modules

```
YUI.add('mail-ui-messagelist'), function(Y) {  
    // messagelist code here  
}, '1.0.0', { requires: [ 'node' ] });
```

- Hundreds of modules: code, strings and templates
- Zero build dev environments, edit and refresh
- Created tools to automatically generate loader map and module dependent string files

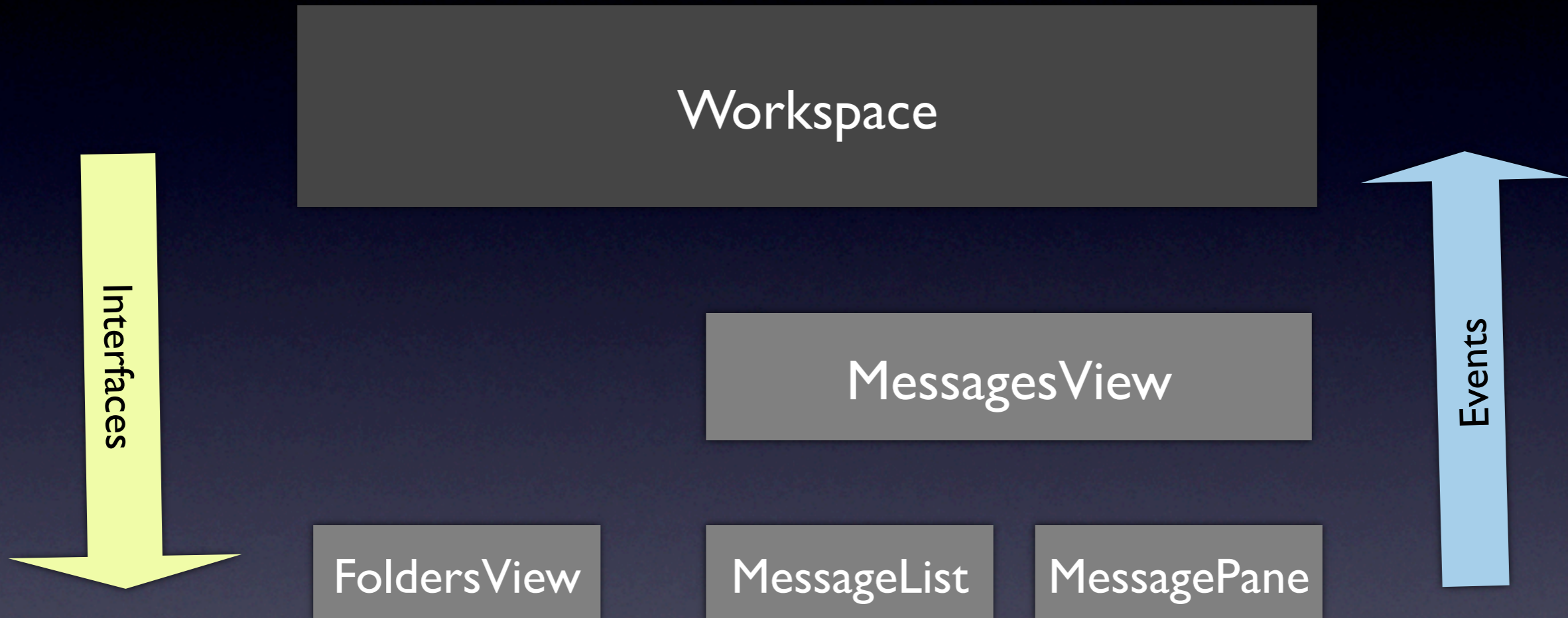
MessagesView



<input type="checkbox"/>	FROM	SUBJECT	DATE
<input type="checkbox"/>	ymeng@yah...	neo_commit - Build # 1395 - Failure!	Mon 11/8, 7:10 AM
<input checked="" type="checkbox"/>	Administrator...	Marina 21y.o, I am on-line now, let's chat?	Wed, 12/31/69 4:0...
<input type="checkbox"/>	Hilary Schn...	Mr. T, Huh? We'll Show You the Real "Eye of the Ti...	Mon 11/8, 6:05 AM
<input type="checkbox"/>	Bugzilla.Wat...	Neo Minty Daily Bug Report	Mon 11/8, 6:00 AM
<input type="checkbox"/>	Mithun Suva...	Neo QA status	Mon 11/8, 5:12 AM
<input type="checkbox"/>	Mithun Suva...	FW: [auto pushed to web32397] neo_secondary - ...	Mon 11/8, 4:11 AM
<input type="checkbox"/>	ymeng@yah...	neo_secondary - Build # 874 - Successful!	Mon 11/8, 3:48 AM
<input type="checkbox"/>	Saji Nair	Error on clicking CONTACTS tab	Mon 11/8, 2:59 AM
<input type="checkbox"/>	Mithun Suva...	FW: [pushed to web32397] neo_secondary - Build ...	Mon 11/8, 2:19 AM

MessagePane

Most Classes are Event /Attribute/Base



Workspace

MessagesView

FoldersView

MessageList

MessagePane

Interfaces

Events

Team Modularity

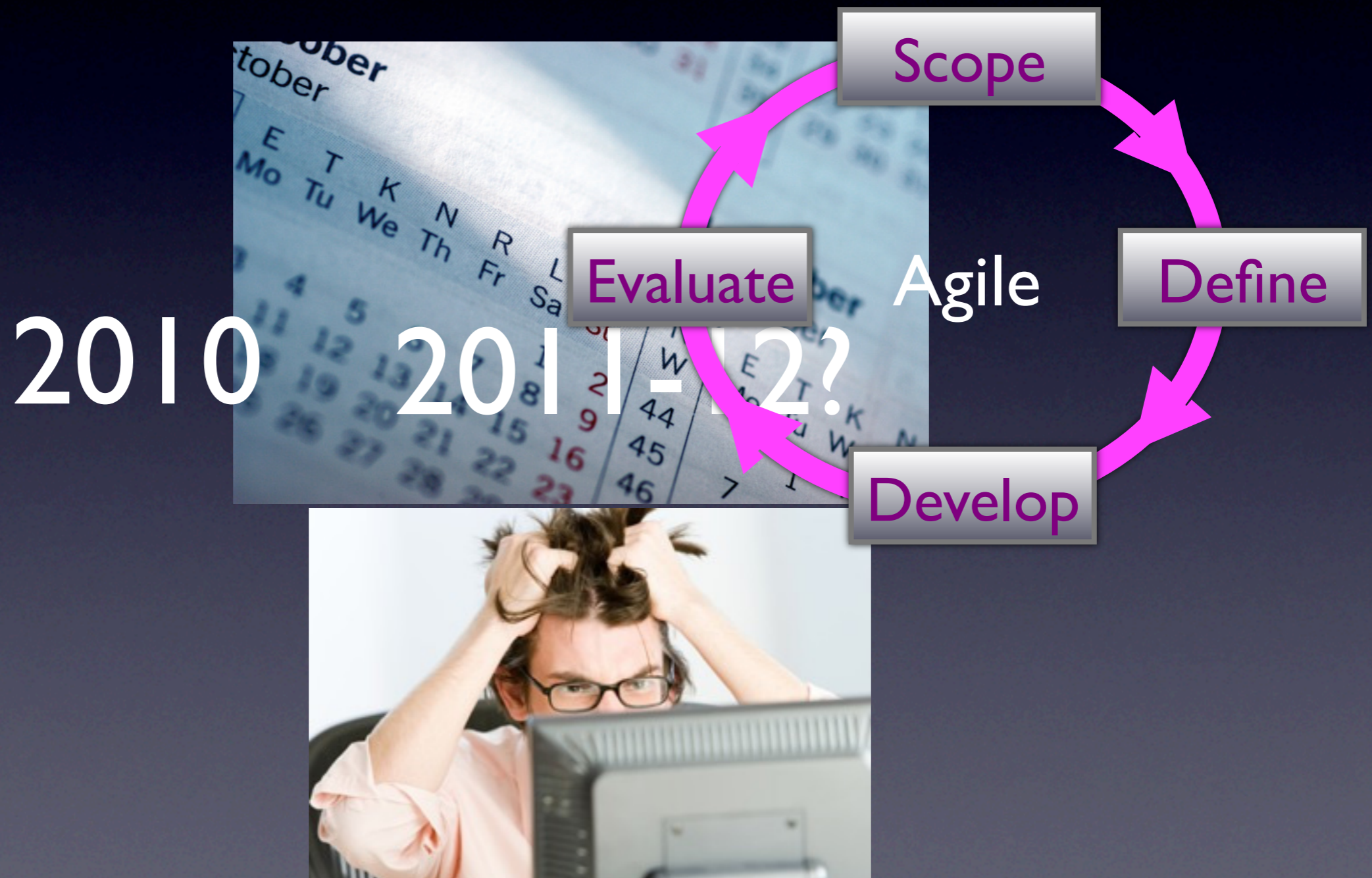
Sunnyvale

San Diego

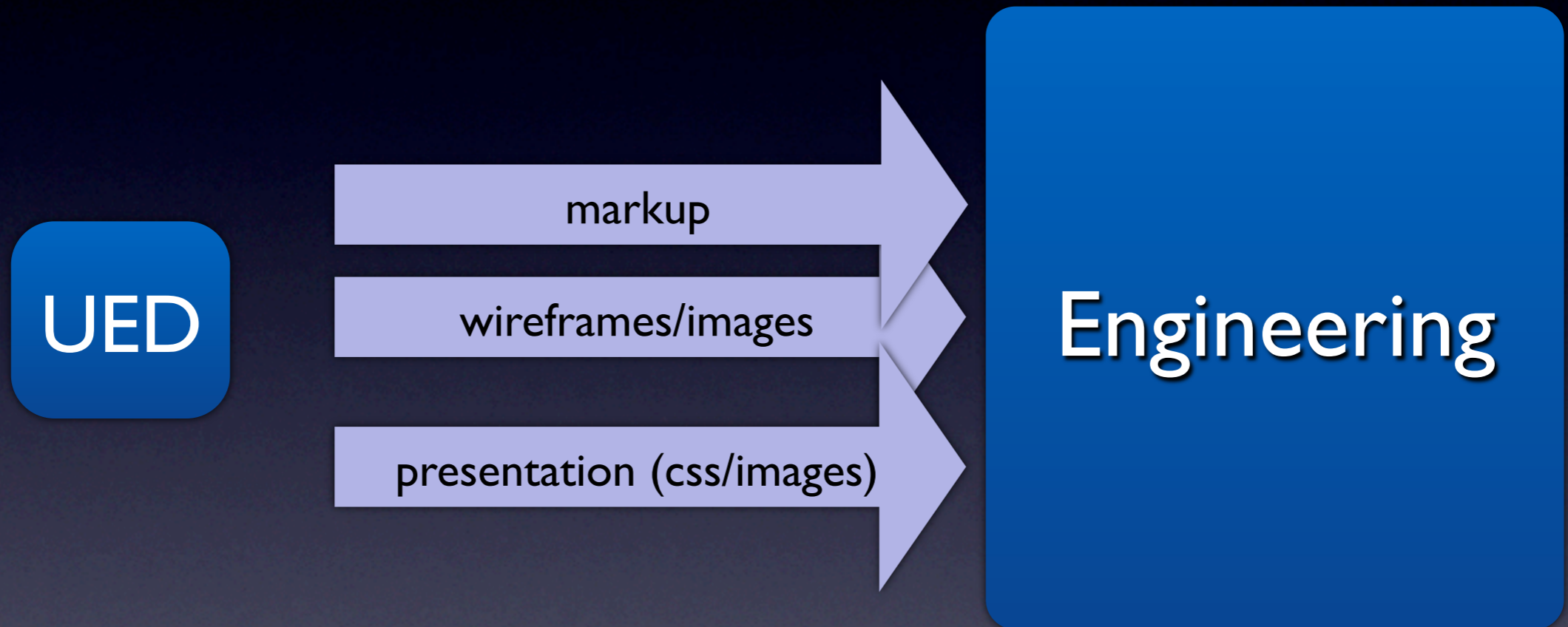
Bangalore



Rapid iteration



Design to Engineering



New Role of UED

Mustache

```
{{#inbox_messagelist}}  
  <li class="{{#msg_unread}}unread{{/msg_unread}}" role="row">  
    <div class="from" role="gridcell">{{msg_from}}</div>  
    <div class="subj" role="gridcell">{{msg_subject}}</a></div>  
    <div class="date" role="gridcell">{{msg_date_display}}</div>  
  </li>  
{{/inbox_messagelist}}
```


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The left sidebar lists various mail folders with their respective counts: Inbox (36979), Drafts, Sent, Spam (1712), and Trash (7). Under the 'Folders' section, there are several sub-folders: autopush (617), candygram (35), cg-folder-test (1), devel-frontend (7373), mail (38), mailtest, my new folderx (13368), neo, neo-the-one (30), neocommits (3272), Notes, perf112 (28), test, test emails, ToDo, and watir.

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The 'GET UPDATES FROM' section lists two contacts: Prathap Varma and Kayvan Kimyal, each with a 'Get Updates' button. A 'Get updates from others' link is also provided.

At the bottom, a 'TODAY' section includes links for 'Top Stories', 'Buzz', 'Entertainment', 'Sports', and 'World'.

Or This ...

! Hello, Daniel | Help | Sign Out | Send Feedback

YAHOO! MAIL Beta

Search Mail Search Web

WHAT'S NEW INBOX CONTACTS

Compose Message

Inbox 36979

- Drafts
- Sent
- Spam 1712
- Trash 7
- Folders
 - autopush 617
 - candygram 35
 - cg-folder-test 1
 - devel-frontend 7373
 - mail 38
 - mailtest
 - my new folderx 13368
 - neo
 - neo-the-one 30
 - neocommits 3272
 - Notes
 - perf112 28
 - test
 - test emails
 - ToDo
 - watir

Welcome to Yahoo! Mail Beta.
See tips on how it works >

Have something to share?
Share on:

UNREAD EMAILS [GO TO INBOX \(36979\)](#)

FROM YOUR CONTACTS

- sureshd@yahoo-inc.com**
 - Hudson build is still unstable: Openmail-Mailgate-API #156 11/6 9:50 AM
 - Hudson build became unstable: OpenMail-WS-API-Secondary #735 11/6 7:58 AM
- ymeng@yahoo-inc.com**
 - neo_commit - Build # 1386 - Still Failing! 11/5 8:30 PM
 - webctl: builder5.mail.corp.yahoo.com 11/5 6:09 PM
- jaed@yahoo-inc.com**
 - [svn-commit] /yahoo/ymail/neo - in trunk/src/om: . api common/constants common/utills controller 11/5 7:38 PM

TRENDING NOW

- Heidi Montag
- Miley Cyrus
- Eddie Murphy
- Daylight Savi...
- Alzheimer'...
- For Colored G...
- Emma Watson
- Cable TV
- SAT Test
- Plane Crashes

Control who you share your updates with.
[Manage updates settings.](#)

GET UPDATES FROM

- Prathap Varma** [Get Updates](#) ✕
- Kayvan Kimyal** [Get Updates](#) ✕

[Get updates from others](#) >

TODAY

[Top Stories](#) | [Buzz](#) | [Entertainment](#) | [Sports](#) | [World](#)

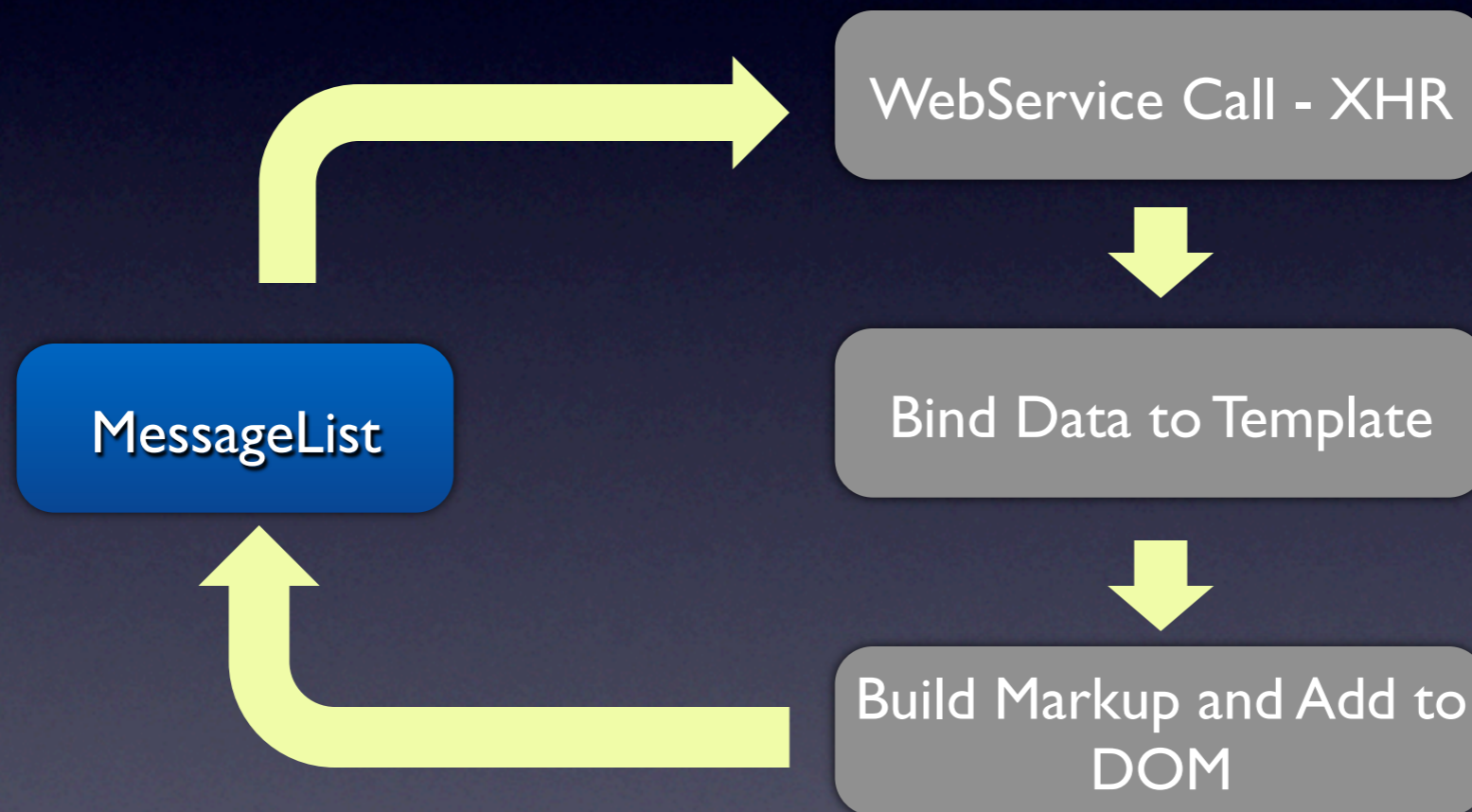
With Themes

The screenshot displays the Yahoo! Mail interface with a 'Themes' dialog box open. The dialog box title is 'Themes' and contains the text: 'Preview the themes below and customize Yahoo! Mail with your favorite!'. It features a 4x3 grid of 12 theme preview cards. Each card shows a sample of the theme's header, including the 'YAHOO! MAIL' logo and navigation buttons for 'WHAT'S NEW', 'INBOX', 'CONTACTS', and 'CALENDAR'. The themes vary in color and background patterns, such as solid colors, gradients, and abstract designs. A 'Done' button is located at the bottom right of the dialog box. The background interface includes a top navigation bar with 'Hello, Daniel', 'Help', 'Sign Out', and 'Send Feedback'. A search bar with 'Search Mail' and 'Search Web' buttons is also visible. On the left, there is a sidebar with 'Compose Message' and a list of folders including 'Inbox', 'Drafts', 'Sent', 'Spam', 'Trash', and several custom folders like 'autopush', 'candygram', and 'devel-frontend'. At the bottom, there is a 'TODAY' section with links for 'Top Stories', 'Buzz', 'Entertainment', 'Sports', and 'World'.

A Closer Look at Modularity

```
<script>  
yui.use('mail-ui-messagelist-base', function(Y) {  
    var messagelist = new Y.mail.ui.MessageList();  
    messagelist.render(document.body);  
});  
</script>
```


A Closer Look at Modularity



Looking to the future...

LiveWire

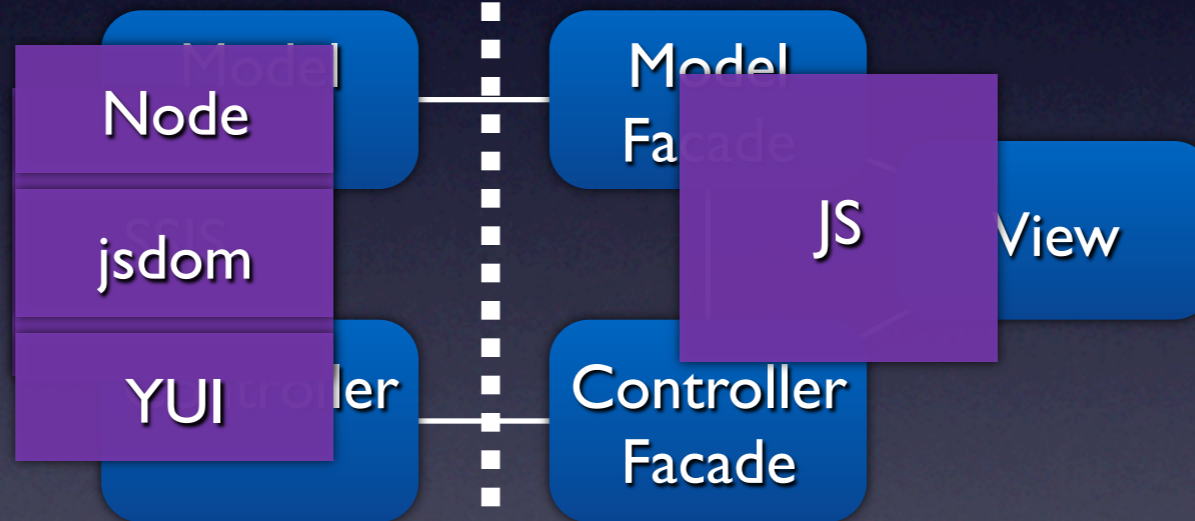
Rhino

Jaxer

Node

server

client



Tips & Tricks

GZIP

Markup Skeleton

Efficient CSS

Non-blocking
JS load

Using browser
cache

Edge Serving
Static Content

Minify JS

Minimize DOM
interaction

JSON

Specify charset
early

Data URI

Sprites

Logical Server-side
Page Flushing

Combine HTTP Requests

Small Dom Weight

Any Questions ?