



Orchestrate Long Running Processes With Platform Events

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Mike Tetlow

CTO at TaskRay



@Mikename



MODERN
PROJECT
MANAGEMENT



INTRODUCTION TO TASKRAY post-sale process

"You won the deal, now what?"

- Service Delivery
- Manufacturing
- Software
- Franchise
- Professional Services
- Complex marketing projects
- Complex support projects
- Internal Salesforce/IT projects

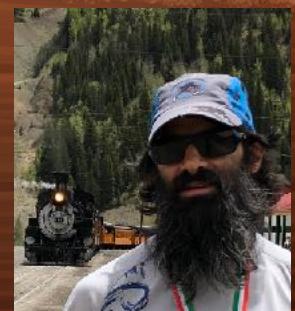
PLAN. WORK. REPORT.
REPEAT.



Nathan Lipke

PMTS
Salesforce
On Flow/Process Builder Team

@evilN8



Forward-Looking Statement

Statement under the Private Securities Litigation Reform Act of 1995



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In the real world things take a long time

Things change during this long time

Everyone Has an Idea for an App

Technology has the potential to transform everyone's experience



Finance



Wellness



Style Guide



Ordering



Deliveries



Personal Assistant



Your Customers



Recognition



Mentoring



Onboarding



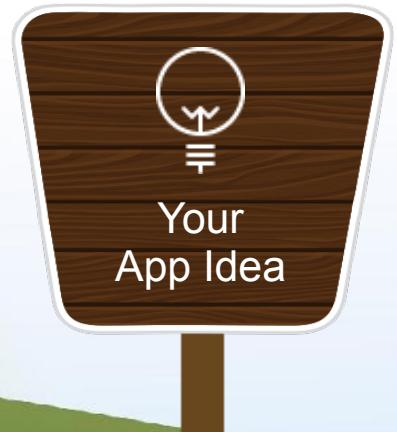
Compliance



Recruiting



Your Employees



Your
App Idea





But simply building an app isn't good enough.
Build an incredible app ***experience***.

Today's Customers Expect Seamless Experiences



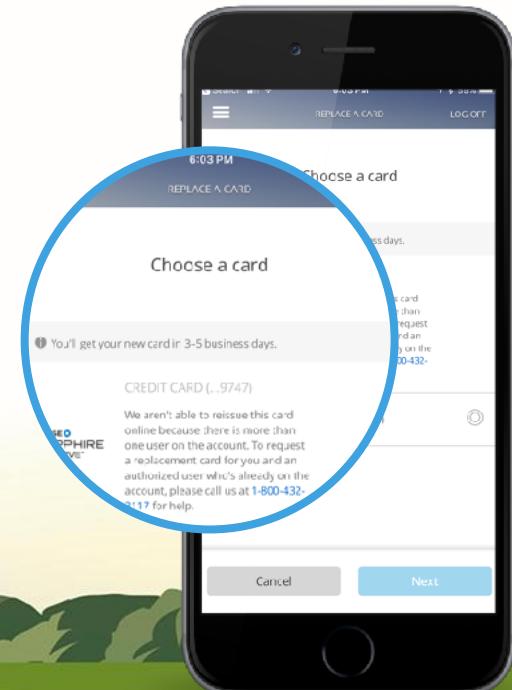
89%
companies
compete on the
basis of customer
experience

Get an Update
on your watch



 **FANDANGO**

Replace a Credit Card
in just one tap



CHASE 

Track deliveries
with your voice

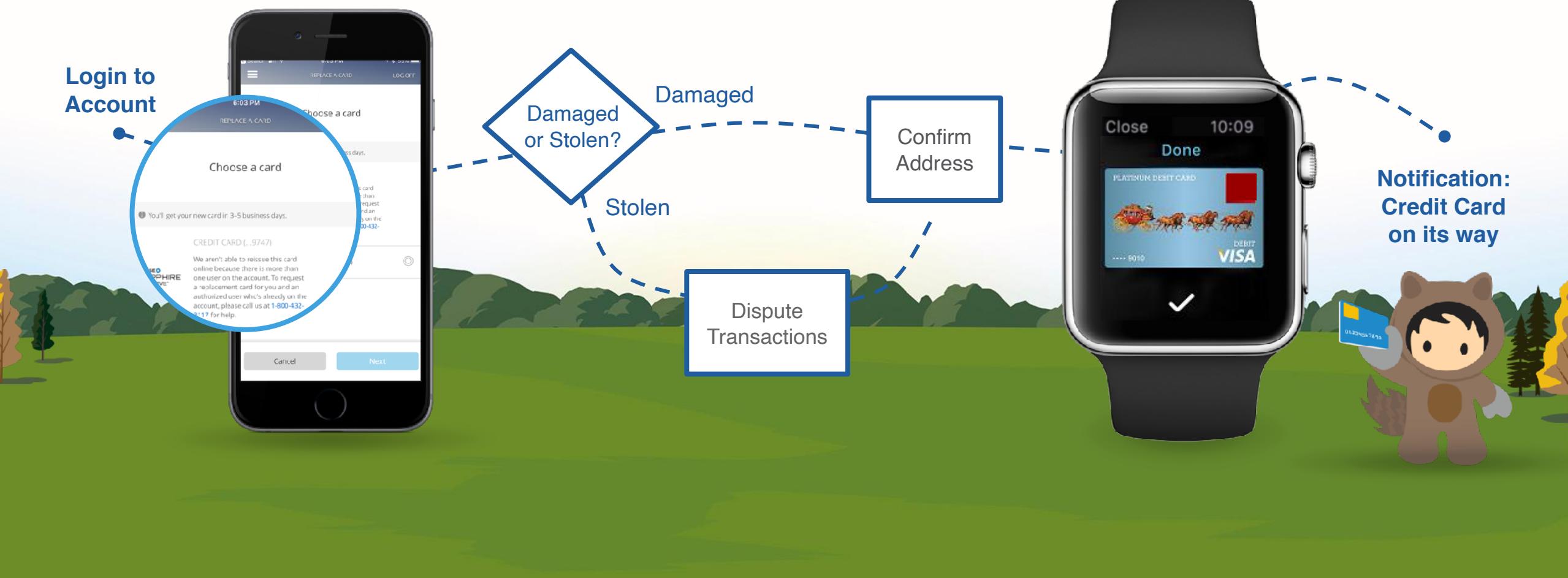


 **amazon**

Behind Every Seamless Experience is a Process



"I need to replace my credit card"



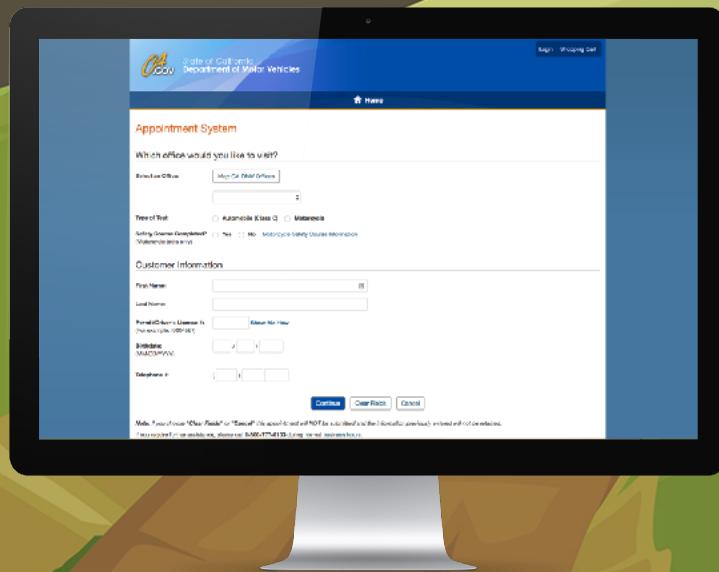
Companies Struggle to Automate These Processes



Seamless Experience
Automated around the customer and employee



Disconnected Experience



Create
Process Logic

Add to every
touchpoint

Code

Build
Beautiful UX

Integrate
Systems

Time

Code

Time

Introducing the Lightning Platform

The fast, easy, and fun way to build apps



No-Code Builders

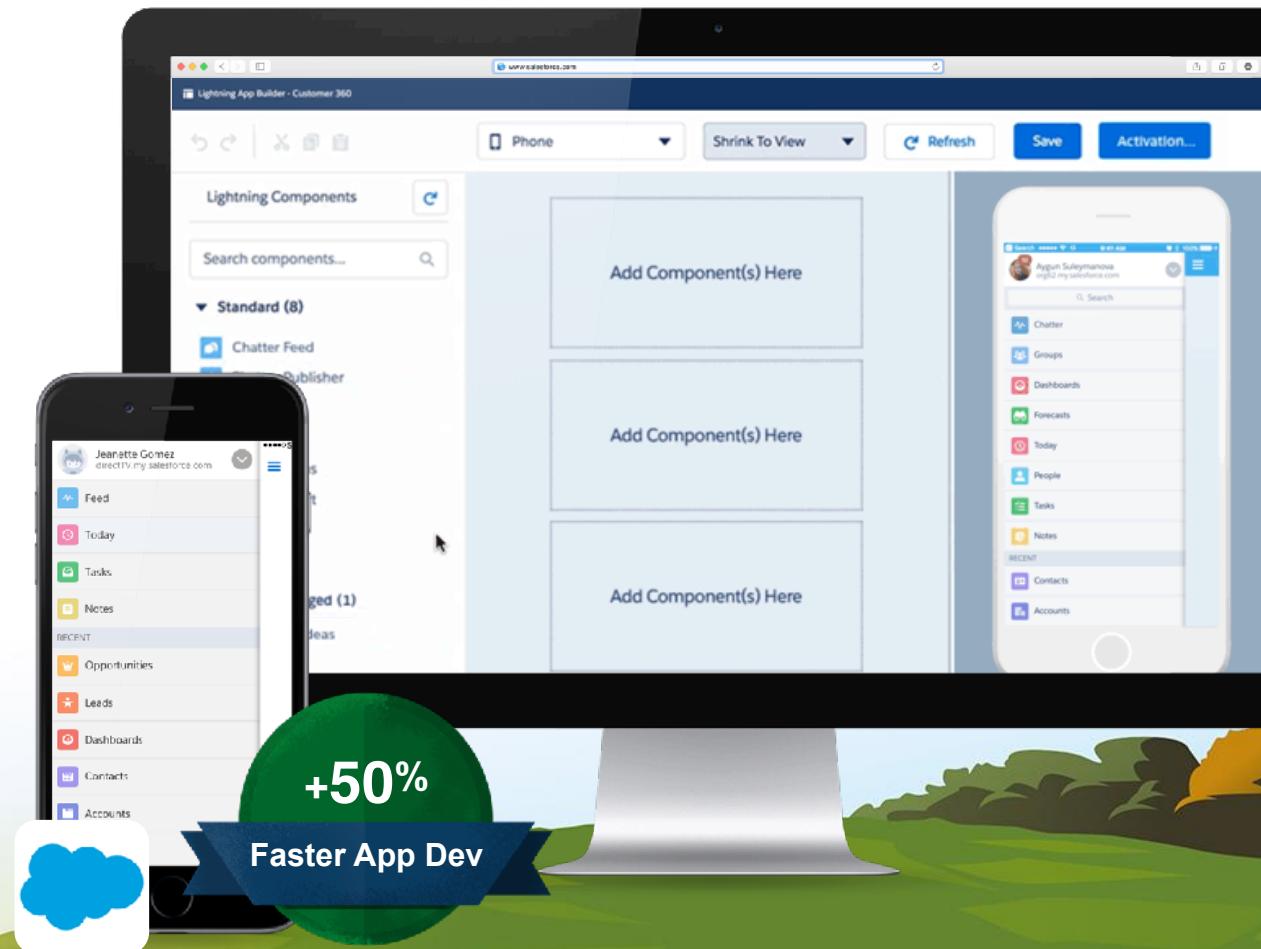
Anyone can solve business problems fast using drag-and-drop tools, without writing a line of code

Pro-Code Tools

Focus programmatic developers on the highest-value initiatives like building Lightning Components

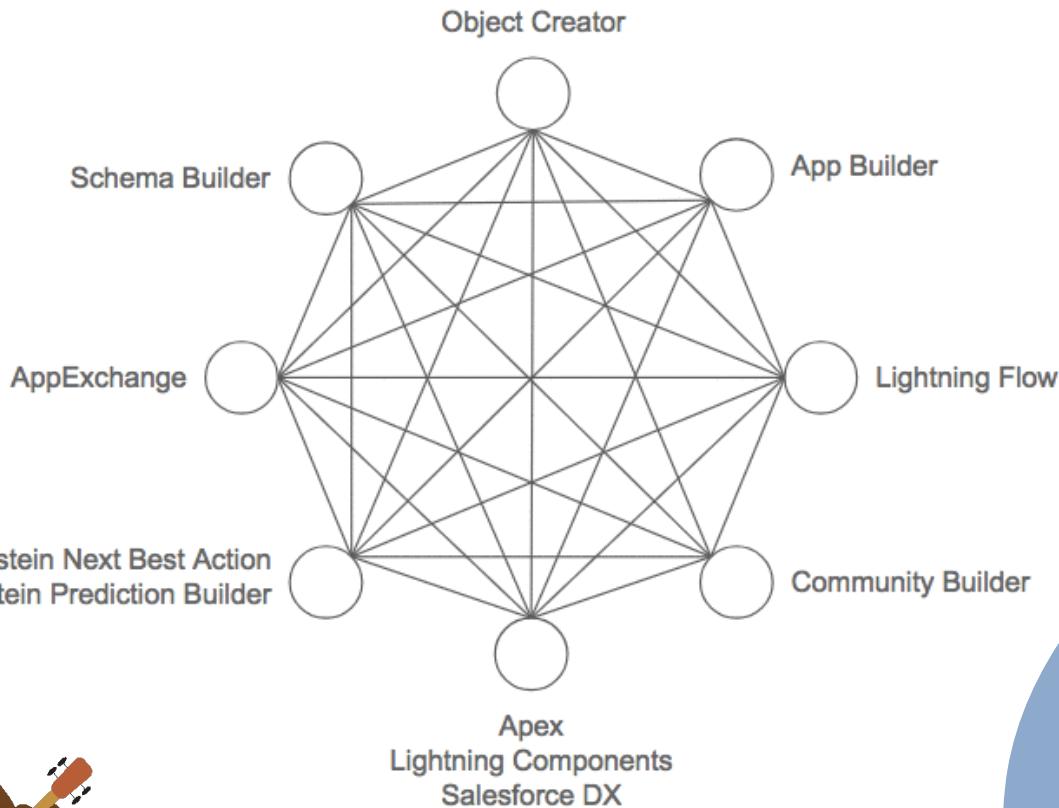
Enterprise Services

Ensure governed and compliant app development, leveraging out-of-the-box functionality



Delivering Admin and Developer Tools that Work Together

Bringing IT and business together so they can work side-by-side to build dynamic apps



Mary Olson Fajimi
IT Development Manager
US Auto Sales

Adam Rutland
Software Engineer,
Vlocity

Introducing Lightning Flow - Launched at TrailheaDX '18!

Build rich and dynamic app experiences with declarative process automation



Lightning Flow Components

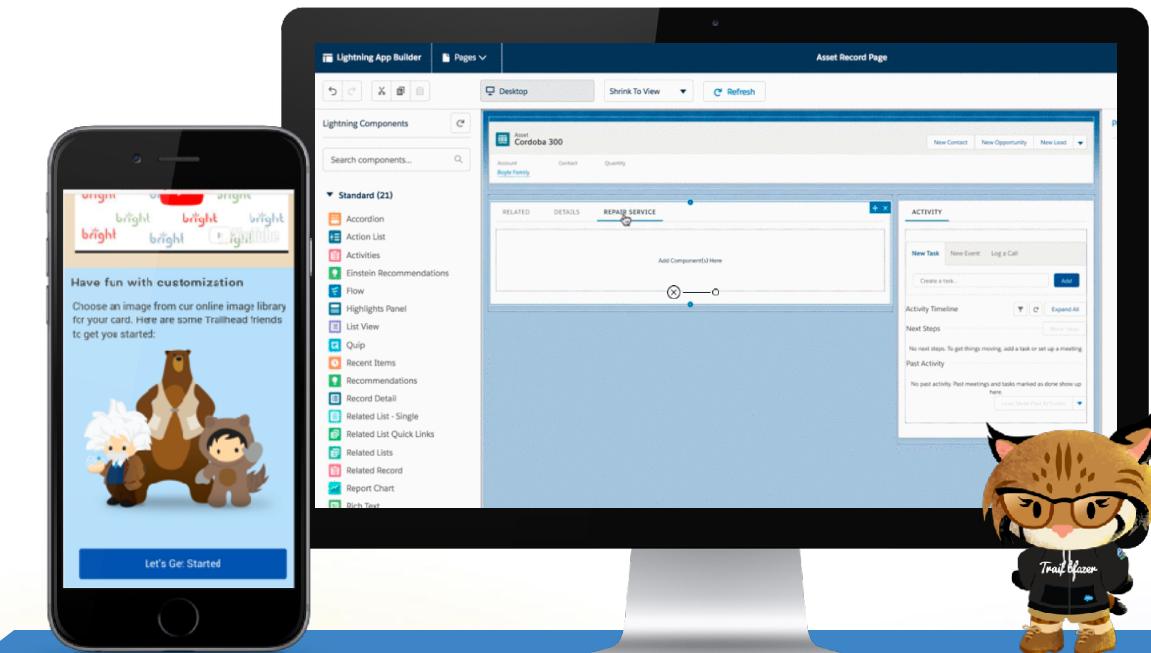
Design guided visual processes to build rich flow screens

Integrated Processes

Orchestrate workflows and 3rd party services with Flow Actions, Platform Events, External Services & Local Actions

Process-Driven Apps

Embed processes into every customer and employee app experience



LIGHTNING
FLOW

Flow Solutions on AppExchange

workato

getfeedback

Chargent PAYMENT PROCESSING FOR SALESFORCE

oktana

vidyard

TASKRAY MODERN PROJECT MANAGEMENT

Vlocity INDUSTRY CLOUD APPS

7Summits

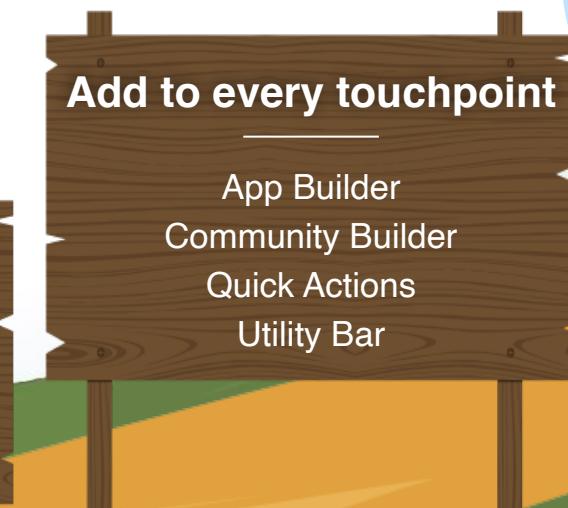
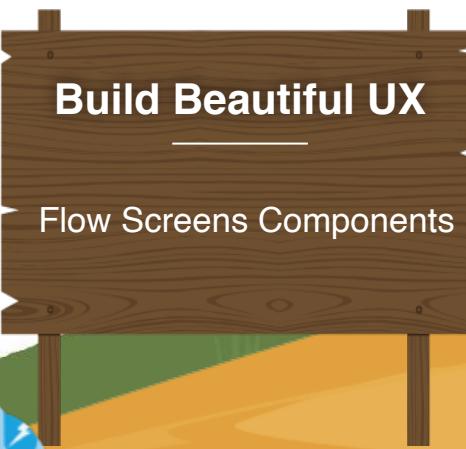
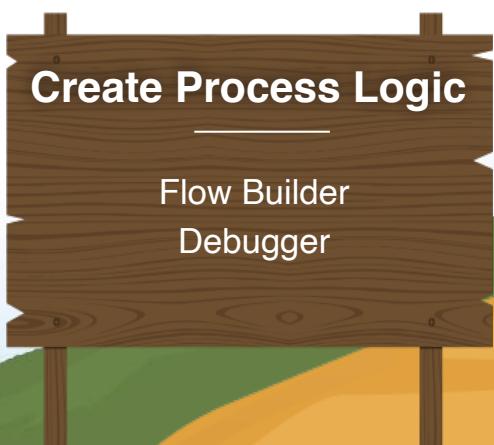
Flow Ecosystem

Lightning Flow Components

Flow Builder and Process Builder

Flow Engine

Everything You Need to Create Seamless Experiences



Seamless Experience

Automated around the customer
and employee

Customer Adoption and Success

500+ production orgs using Lightning Flow with custom Lightning screens



Flow Solution: Vendor Onboarding

Provide a consumer-grade digital experience for Vendors and Merchants to navigate and complete the journey with ease.

Features:

- Progressive Unlocking
- Visual Overrides
- Flow Stage Path
- Approval Processes

The screenshot shows a Lightning Flow titled 'Product Catalog'. At the top, it says '4 of 8 completed.' and 'Est 15 mins'. Below this, there's a progress bar with 5 steps. The main content area is titled 'Edit Product' and shows details for a 'Base Camp Mamba Pack':

- Product Name: Base Camp Mamba Pack
- Category: Outdoor Clothing and Equipment
- Brand: Base Camp
- List Price: \$270.00
- Online Annual Sales: \$1,375,000.00
- Offline Annual Sales: \$1,125,000.00
- Description: Refined through extensive alpine use all around the world, the Base Camp Mamba 60 pack is a full-featured workhorse for mountaineering. 60 liters holds your essentials plus the guide-required extras.
- Media (Photos, Video): ADD
- Specifications: ADD

On the right side of the screen, there are sections for 'Your Tasks' (with items like 'Product Catalog' and 'Licenses and Permits'), 'Your Team' (with a placeholder for 'Your Representative'), and a sidebar for 'APPIRIO a wipro company'.

500+
Production
Orgs

What is a long-running process

How long is long

Weeks to years

- Anything that's shorter-term or synchronous you can use standard Salesforce Lightning Flow

Some Examples

- Construction - Salesforce tower
 - Designed 2007
 - Construction start 2013
 - Tenant signs lease 2014
- Retail Sales
 - Next year's Labor Day Sale planning is well underway
 - What happens if tax law changes



How to handle long running things and deal with change

salesforce



Platform Events let you loosely couple Lightning Flow

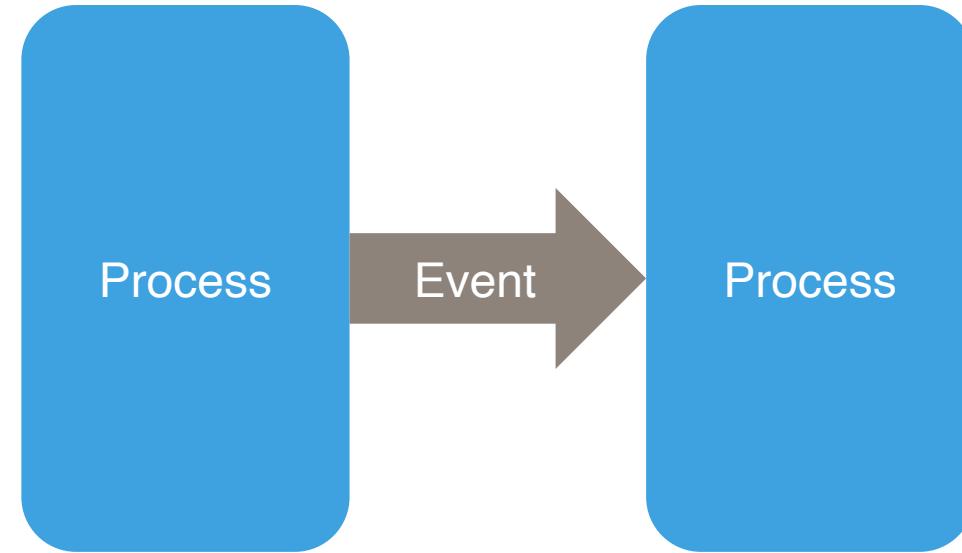


Event Listeners are dynamic until running

- Can be edited
- Added
- Removed

Lightning Flow can both listen for and send platform events

- Process Builder
- Flows





Demo Example

Demo: A Franchise is Sold

Going from Won to Opening

A franchiser has won a sale

- Opportunity stage: Closed Won

Need to build a store and open it

- Get Funding
- Find Location
- Get Permits
- Construction
- Hire People
- Order Inventory
- Advertise





Demo

Real World



The demo was simplified

- Real World might be 200+ actions
- How do you organize this

Lots of ways to consume and send events

- Apex
- Lightning
- Heroku / Off-Platform
 - Node
 - Java
 - ...



EMP.js



Streaming API Lightning Component

- Subscribes to any event channel (Platform Event, CDC, PushTopic, Generic)
- Manages and optimizes concurrent connections between components / tabs
- Leveraged by Salesforce native components

```
1 ▼ <aura:component implements="force:appHostable" access="global" >
2     <lightning:empApi aura:id="empApi" />
3     <lightning:input aura:id="channel" label="channel" name="channel" type="text"
4             value="/event/Low_Ink_Level_e"/>
5     <lightning:button label="Subscribe" onclick="{!! c.subscribe }" />
6     <lightning:button label="Unsubscribe" onclick="{!! c.unsubscribe }" />
7     <aura:attribute name="sub" type="Object" />
8 </aura:component>
```





Best Practices

Say what happened not what to do

Events are not commands

Keep things flexible

Events tell listeners something has happened

- Do: OpportunityWon
- Don't: RunSalesTaxProcess



Events are not State



Events are ephemeral

- They're in Salesforce for seconds
- They'll be gone for ever and lost in no time
 - Be careful with your conditions when handling events

Use a standard or custom object and refer to it

- OpportunityWon
 - OpportunityId

Process Builder requires an object

- Must be a unique lookup
 - Best Practice: Use the ID



Keep track of where things are

There is nothing native in Salesforce to track what's already happened

- You can report on various Objects
- Have your process check if you've already done the work

User a Custom Object to track your overall status

- May need multiple objects if things happen in parallel
- E.g.: Sale Status
 - Manufacturing Status
 - Distribution Status
 - Advertising Status



Next Steps



Lightning Flow



Platform Events Basics



Build an Instant Notification App

TaskRay Stitcher docs

- <https://support.taskray.com/hc/en-us/articles/115010780907-Stitcher>



Flow Builder Coming in Spring '19

Faster, easier, and more intuitive flow building to deliver dynamic apps

Coming Soon



Familiar, Intuitive, and Accessible

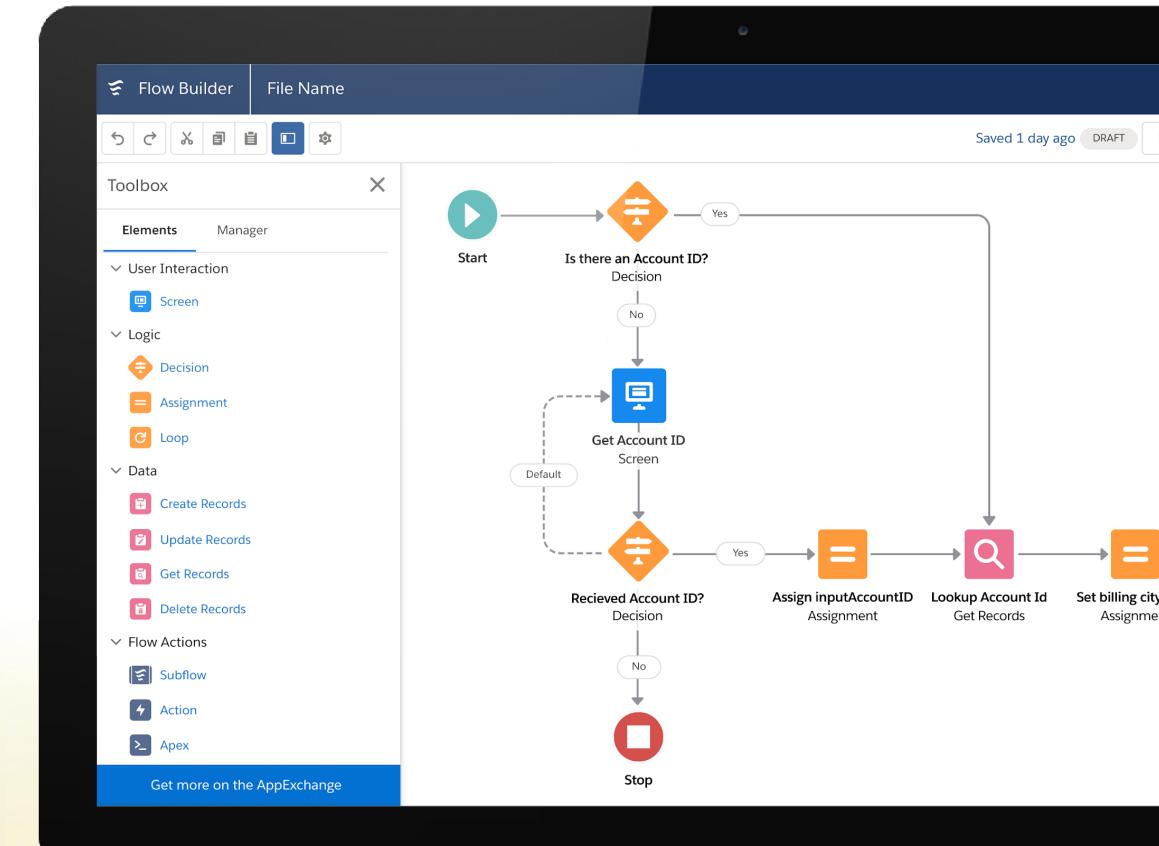
Simplified tool palette, intuitive shapes, and standard form controls make building flows easier than ever

Lightning-Fast Performance

Built with Salesforce's latest and most performant front-end technologies, you can say good-bye to Flash

Seamless and Integrated

Existing flows continue to run like they did before and they work with flow actions on AppExchange



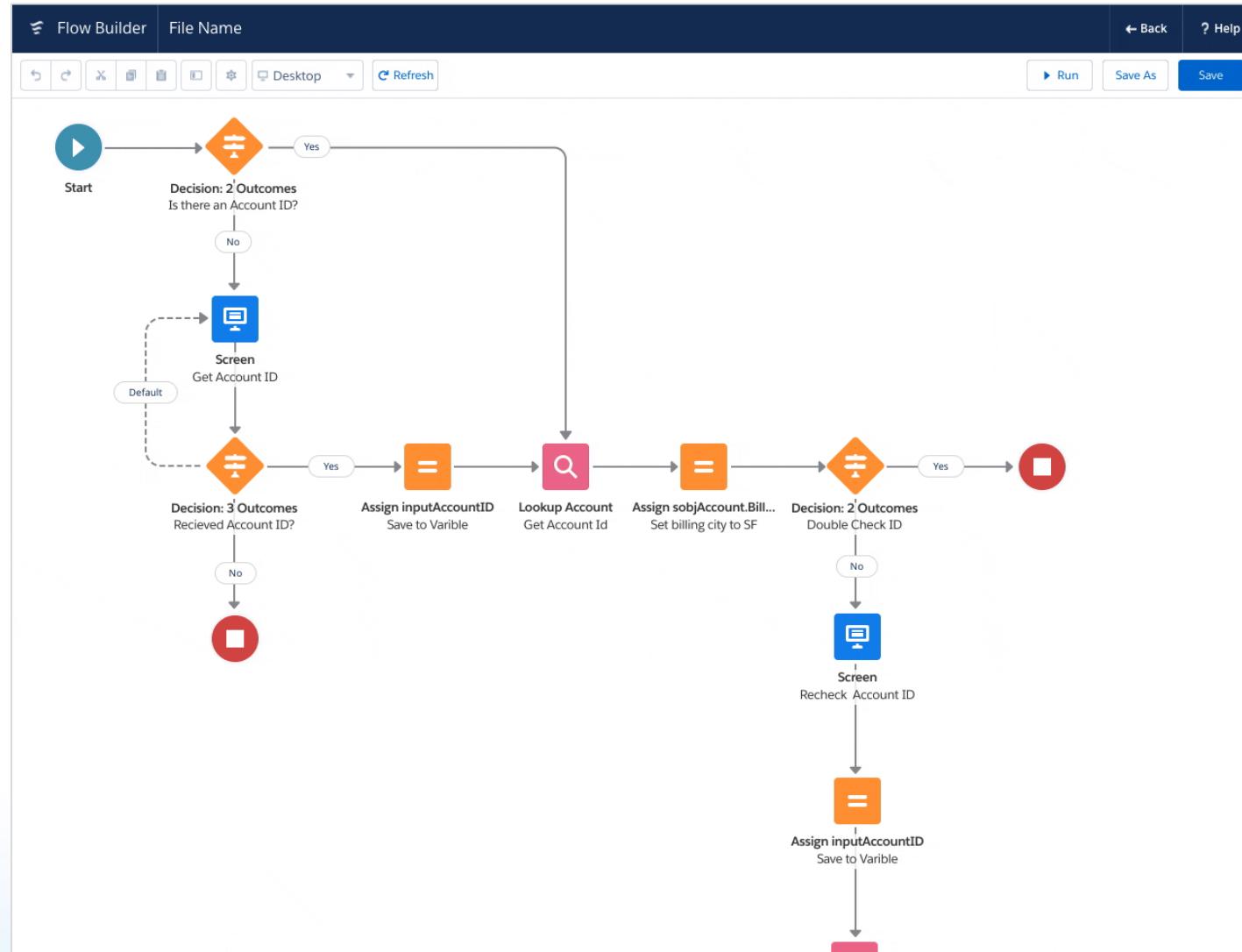
Flow Builder Coming in Spring '19

Coming Soon



Unified
Builders
Header &
Toolbar

Simplified
Palette



Improved
Shapes
and Colors
And
more...



Flow Solutions Category on AppExchange in Winter '19

Accelerate development with Flow Actions that integrate with 3rd party systems

Extend the power of Lightning Flow

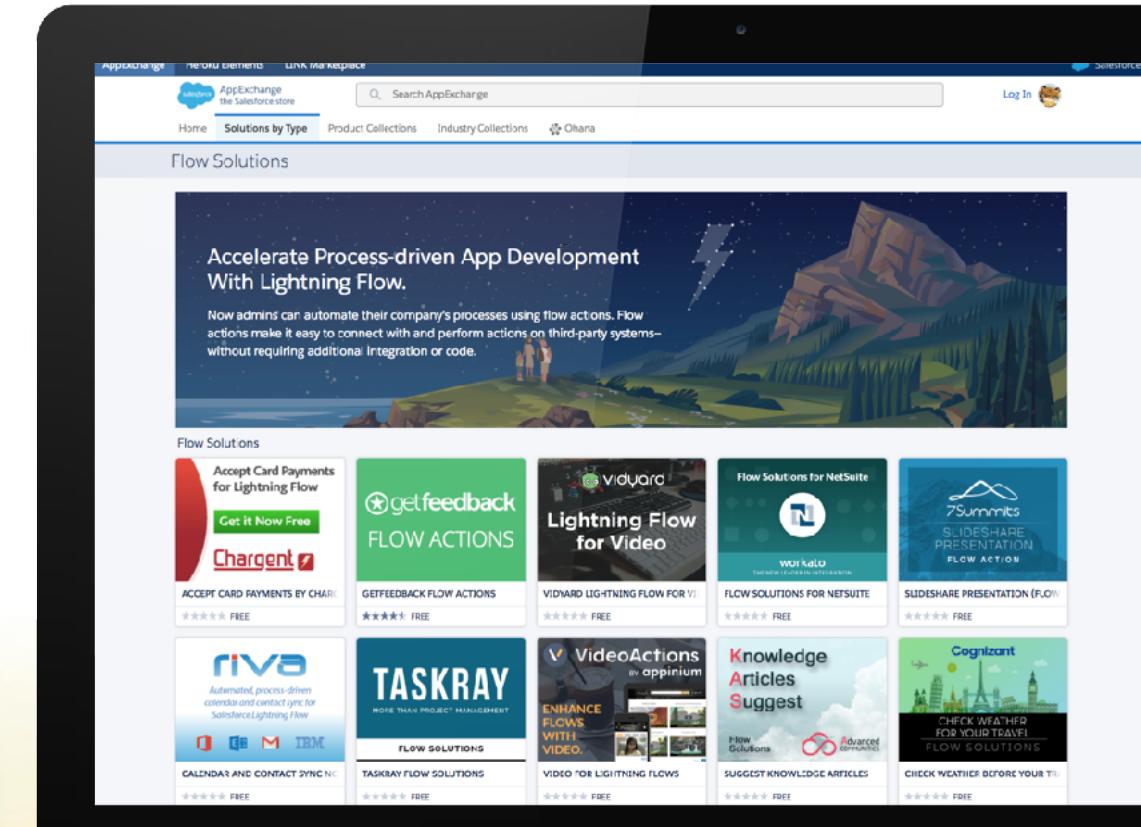
Use drag-and-drop Flow Actions in Lightning Flow to unlock more actions than previously imaginable

Make data, apps, and services work together

Pull in external data and perform actions on other systems declaratively—reducing integration efforts

Connect in more ways than one

String multiple partner Flow Actions together to solve the broadest set of business process challenges





Build Flows Quickly Using Drag-and-Drop Flow Actions

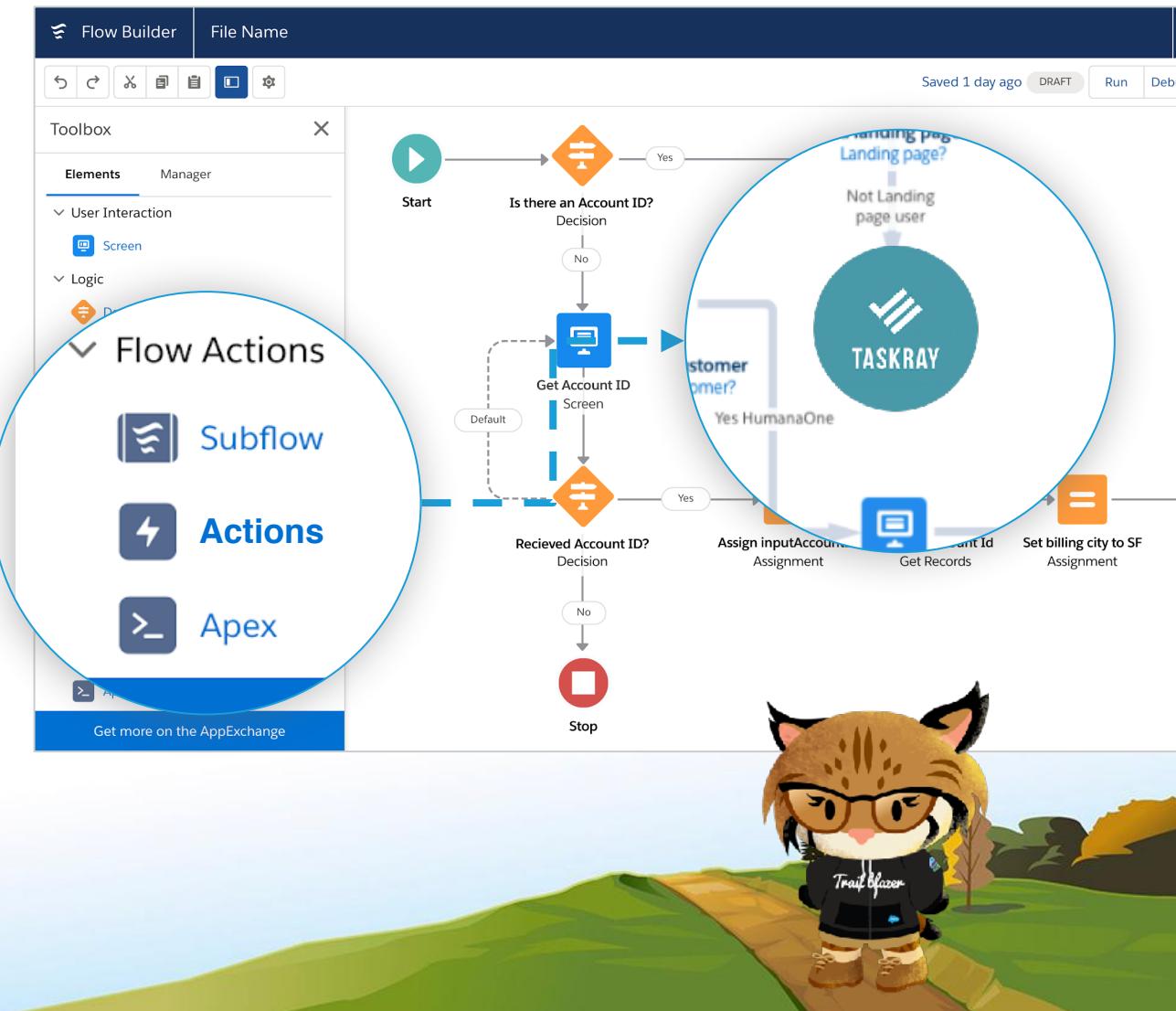
Assemble industry-specific flows on the fly

Flow Actions make it easy to create flows that connect with and perform actions on third-party systems to build seamless, guided, and connected experiences.

Find them under “Flow Solutions” on AppExchange

The screenshot shows the AppExchange Flow Solutions page. It features a banner about accelerating process-driven app development with Lightning Flow. Below the banner, there are several flow solution cards:

- TASKRAY**: Connects with LinkedIn.
- VIDYARD**: Accepts card payments via ChargeIt.
- WORKATO**: Flow Actions for NetSuite.
- 7Summits**: Social Engagement Pack.
- getfeedback**: Survey Component.
- 7Summits**: Slideshare Presentation.
- Cognizant**: Click Weather.
- Knowledge Articles Suggest**: Suggest Knowledge Articles.





Growing Collection of Flow Actions Available Now

Accept a Credit Card Payment



Suggest Knowledge Articles



Conduct Credit Check



Integrate to NetSuite



Retrieve in LinkedIn Profile Data



Check Weather Forecast



Save and Send on a Task



Add a Survey



Add a Video Player



View Recommended Videos



Add a Task to a Project



Run a Vlocity Omniscript



Generate a Quick Quote for Loan Processing



Update Jira & Post to Slack



Continue the Lightning Flow Journey at Dreamforce



Tuesday

8:00AM - 8:40AM
Testing Lightning Flow Automations
Moscone West, Room 2007

10:00AM - 10:40AM
Reimagine Declarative App Dev with Lightning Flow
Moscone West, Room 2008 (featuring Ticketmaster)

12:45PM - 1:30PM &
1:45PM - 2:30PM
Campfire Workshop: Automate Service Processes with Lightning Flow for Service
Marriott Marquis, Golden Gate: Service Lodge - Table 2

1:00PM - 1:20PM
Lightning Flow Actions: Build Industry-Specific Flows
AppExchange Den

Lightning Flow

TRAIL MAP

Wednesday

8:30AM - 9:10AM
Supercharge Processes w/Lightning Flow for Service
Moscone West, Room 2009

8:45AM - 9:05AM
Optimize Your Salesforce Lightning Flow to Include in Community Cloud
Moscone West, Frontier Theater

9:00AM - 9:40AM
Salesforce DX Rapid Dev & Lightning Flow
Moscone West, Room 2007

9:30AM - 10:10AM
Orchestrate Long Running Processes with Platform Events
Moscone West, Room 2002

10:00AM- 10:40AM
Harness the Power of Flows to Build Intelligent Portals for Regulated Industries
Palace Hotel, Ralston Room

10:15AM - 5:30PM Ongoing
Campfire Workshop: Automate Service Processes with Lightning Flow for Service
Marriott Marquis, Golden Gate: Service Lodge - Table 2

1:30PM - 1:50PM & 5:00PM - 5:20PM
Lightning Flow Actions: Build Industry-Specific Flows
AppExchange Den

5:00PM - 5:40PM
Transforming Customer Service with Lightning Flow
Marriott Marquis, Nob Hill A-D

5:30PM - 5:50PM
Orchestrations and Integrations for App Dev on the Lightning Platform
Moscone West, Developer Theater (featuring Ticketmaster)

Thursday

8:00AM - 5:30PM Ongoing
Campfire Workshop: Automate Service Processes with Lightning Flow for Service
Marriott Marquis, Golden Gate: Service Lodge - Table 2

8:30AM - 9:10AM
Orchestrations and Integrations for App Dev on the Lightning Platform
Moscone West, Room 2022-2024

9:00AM - 9:20AM
Extend Lightning Flow w/Lightning Components
Moscone West, Canyon Theater

12:15PM - 12:35PM
Empower Your Admins to Extend Your Lightning Flow Applications
Moscone West, Frontier Theater

12:30PM - 12:50PM & 3:00PM - 3:20PM
Lightning Flow Actions: Build Industry-Specific Flows
AppExchange Den

1:00PM - 1:40PM
Take Your Existing App to the Next Level by Adding Flow and Declarative Process
Moscone West, Room 2004

3:00PM - 3:40PM
Reimagine Declarative App Dev with Lightning Flow
Moscone West, Room 2008 (featuring AAA Carolinas)

4:30PM - 5:10PM
Einstein Next Best Action: Optimal Recommendations at the Point of Maximum Impact
Moscone West, Room 2006

Friday

8:00AM - 12:30PM
Ongoing
Campfire Workshop: Automate Service Processes with Lightning Flow for Service
Marriott Marquis, Golden Gate: Service Lodge - Table 2

8:30AM - 8:50AM
11:00AM - 11:20AM
Lightning Flow Actions: Build Industry-Specific Flows
AppExchange Den

More about Platform Events Sessions



Today

- Decouple Architectures with High Volume Platform Events Using Clicks and Code
- Easily Extend Salesforce Platform Events to Your Enterprise

Thursday

- Connect Platform Events to Downstream Systems with MuleSoft and Without Code
- Platform Events for #AwesomeAdmins

Friday

- Get on the Bus, The Platform Events Bus!
- Decouple Architectures with High Volume Platform Events Using Clicks and Code



More TaskRay?

Visit us in the Expo!



Booth #1709





Q & A

THANK YOU

