Integrating Drupal with 3rd party API’s

brought to you by
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Travel Registry

Purpose

Capture the travel itineraries of Cornell Students and Faculty traveling abroad in order to notify them via text and email in the event of an emergency in their destination location.

Emergency Notification Needed

Concur Locate

Only needs small amount of info

- Traveler Name
- Dates
- Location
- Email
- Phone

Beyond Emergency Notification Data

We want to collect more information

- ITART
- Emergency Contacts
- Reason

Can’t be done in Concur Locate

Control of Presentation

- Drupal can collect and connect the necessary data for the traveler.

- We can control the presentation of this form and data when we build it in Drupal

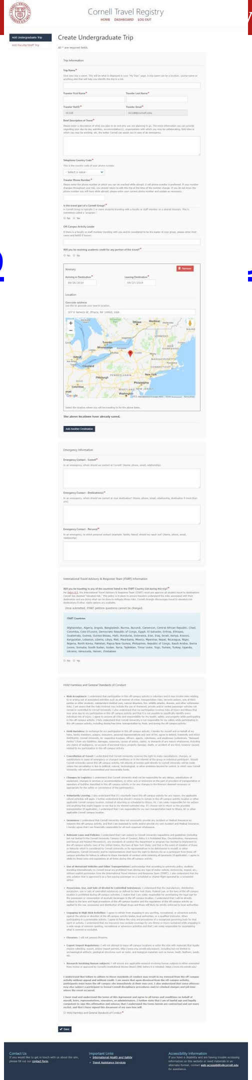
Architecture in Drupal

- 3 Content Type
  - Graduate Trip
  - Undergraduate Trip
  - Faculty/Staff Trip

- Paragraphs
- Geolocation
- Conditional Fields
- Views

Live Demo

https://test-travel-reg.pantheonsite.io uate-trip



Cornell Travel Registry

HOME DASHBOARD LOG OUT

Add Undergraduate Trip

Add Faculty/Staff Trip

Create Undergraduate Trip

All * are required fields.

Trip Information

Trip Name*

Give your trip a name. This will be what is displayed in your "My Trips" page. A trip name can be a location, course name or anything else that will help you identify the trip in a list.

Traveler First Name*

Traveler Last Name*

Traveler NetID*: rll328

Traveler Email*: rll328@cornell.edu

Brief Description of Travel*

Please enter a description of what you plan to do and why you are planning to go. The more information you can provide regarding your day-to-day activities, accommodation(s), organizations with which you may be collaborating, field sites in which you may be working, etc, the better Cornell can assist you in case of an emergency.

Telephone Country Code*

This is the country code of your phone number.

- Select a value -

Traveler Phone Number*

Please enter the phone number at which you can be reached while abroad. A cell phone number is preferred. If your number changes throughout your trip, you should return to edit this trip at the time of the number change. If you do not know the phone number you will have while abroad, please enter your current phone number and update as necessary.

Is this travel part of a Cornell Group?*

A Cornell Group is typically 2 or more students traveling with a faculty or staff member on a shared itinerary. This is sometimes called a "program."

○ No ○ Yes

Off Campus Activity Leader

If there is a faculty or staff member traveling with you and/or considered to be the leader of your group, please enter their name and NetID if known.

Will you be receiving academic credit for any portion of this travel?*

○ No ○ Yes

Itinerary

Remove

Arriving in Destination*: 09/26/2019

Leaving Destination*: 09/27/2019

Location

Geocode address

Use this to geocode your search location.

107 E Seneca St, Ithaca, NY 14850, USA

Select the location where you will be traveling to for the above dates.

The above locations have already saved.

Add Another Destination

Emergency Information

Emergency Contact - Cornell*

In an emergency, whom should we contact at Cornell? (Name, phone, email, relationship)

Emergency Contact - Destination(s)*

In an emergency, whom should we contact at your destination? (Name, phone, email, relationship, destination if more than one)

Emergency Contact - Personal*

In an emergency, to which personal contact (example: family, friend) should we reach out? (Name, phone, email, relationship)

International Travel Advisory & Response Team (ITART) Information

Will you be traveling to any of the countries listed in the ITART Country List during this trip?*

Per Policy 8.5, the International Travel Advisory & Response Team (ITART) must pre-approve all student travel to destinations Cornell has deemed "elevated-risk." This policy is in place to ensure travelers understand the risks associated with their destination and are doing what can be done to mitigate those risks. Cornell strongly discourages travel to elevated-risk destinations if other viable options are available.

Once submitted, ITART petition questions cannot be changed.

ITART Countries:

Afghanistan, Algeria, Angola, Bangladesh, Burma, Burundi, Cameroon, Central African Republic, Chad, Colombia, Cote D'Ivoire, Democratic Republic of Congo, Egypt, El Salvador, Eritrea, Ethiopia, Guatemala, Guinea, Guinea Bissau, Haiti, Honduras, Indonesia, Iran, Iraq, Israel, Kenya, Kosovo, Kyrgyzstan, Lebanon, Liberia, Libya, Mali, Mauritania, Mexico, Myanmar, Nepal, Nicaragua, Niger, Nigeria, North Korea, Pakistan, Papua New Guinea, Philippines, Republic of Congo, Saudi Arabia, Sierra Leone, Somalia, South Sudan, Sudan, Syria, Tajikistan, Timor Leste, Togo, Tunisia, Turkey, Uganda, Ukraine, Venezuela, Yemen, Zimbabwe

○ No ○ Yes

Hold Harmless and General Standards of Conduct

- **Risk Acceptance:** I understand that participation in this off-campus activity is voluntary and it may involve risks relating to or arising out of associated activities such as all manner of crime, transportation risks, terrorist actions, acts of third parties or other students, substandard medical care, natural disasters, fire, wildlife attacks, disease, and other unforeseen risks. I am aware that the risks involved may include the use of chartered, private and/or rented passenger vehicles not owned or controlled by Cornell University. I also understand that my participation involves risks of injury and illness that may arise due to my participation in this off-campus activity and that it is not possible to specifically identify every individual risk of injury. I agree to assume all risks and responsibility for my health, safety, and property while participating in this off-campus activity. I fully understand that Cornell University is not responsible for my safety while participating in this off-campus activity, including during free time, transportation to, from, and during the off-campus activity.
- **Hold Harmless:** In exchange for my participation in this off-campus activity, I hereby for myself and on behalf of my heirs, family members, assigns, executors, personal representatives and next of kin, agree to defend, indemnify and HOLD HARMLESS, Cornell University, its' respective trustees, officers, agents, volunteers, and employees (collectively, "Released Parties") from any liabilities, damages, expenses, causes of action, claims, or demands of any nature whatsoever, including any claims of negligence, on account of personal injury, property damage, death, or accident of any kind, however caused, related to my participation in this off-campus activity.
- **Cancellation of Travel:** I understand that Cornell University reserves the right to make cancellations, changes, or substitutions in cases of emergency or changed conditions or in the interest of the group or individual participant. Should Cornell University cancel this off-campus activity, full refunds of monies paid directly to Cornell University will be made unless the cancellation is due to political, natural, technological, or other problems beyond its control, in which case Cornell University will refund uncommitted and recoverable funds.
- **Changes to Logistics:** I understand that Cornell University shall not be responsible for any delays, substitutions of equipment, changes in services or accommodations, or other acts or omissions on the part of providers of transportation or operators of facilities described in this off-campus activity or for any changes in the itinerary deemed necessary or appropriate for the safety or convenience of the participant(s).
- **Voluntarily Leaving:** I also understand that if I voluntarily leave this off-campus activity for any reason, the applicable refund schedule will apply. I further understand that should I choose to remain in the off-campus activity location or other applicable Cornell campus location, instead of returning as scheduled to Ithaca, NY, I am solely responsible for my actions and anything that might happen to me due to my elected extended stay. If I choose not to return on the provided transportation (if applicable), I understand that I am responsible for my own transportation back to Ithaca, NY or other applicable Cornell campus location.
- **Insurance:** I understand that Cornell University does not necessarily provide any Accident or Medical Insurance as respects this off-campus activity, and that I am expected to verify and/or provide my own Accident and Medical Insurance. I hereby agree that I am financially responsible for all such expenses whatsoever.
- **Relevant Laws and Policies:** I understand that I am subject to Cornell University regulations and guidelines (including but not limited to the Cornell University Campus Code of Conduct, Policy 6.4 Prohibited Bias, Discrimination, Harassment, and Sexual and Related Misconduct), any standards of conduct the department or program has decided to implement to the off-campus activity, laws of the United States, the laws of New York State; and that in the event of violation of these, or behavior which is considered by Cornell University or its representatives to be detrimental to myself, or other participants, Cornell University and its representatives shall have the right to dismiss me as a participant from these off-campus activities for failure to adhere to these standards of conduct while retaining all payments (if applicable). I agree to abide by these rules and regulations at all times during this off-campus activity.
- **Use of Motorized Vehicles and Other Transportation:**I acknowledge that according to university policy, students traveling internationally on Cornell travel are prohibited from driving any type of motor vehicle, motorcycle, moped, etc., without explicit permission from the International Travel Advisory and Response Team (ITART). I also understand that the only aviation that is approved is as a fare-paying passenger on a scheduled or charter flight operated by a scheduled airline.
- **Possession, Use, and Sale of Alcohol & Controlled Substances:** I understand that the manufacture, distribution, possession, use or sale of controlled substances as defined by New York State, Federal Law, or the laws of the off-campus location is prohibited during off-campus activities. I realize that I am solely responsible for ascertaining the legal age for the possession or consumption of alcoholic beverages in the off-campus location. I understand that I will be directly subject to the laws and legal procedures of the off-campus location and the regulations of the off-campus activity as applied to the use, possession and distribution of illegal drugs and these will likely be strictly enforced by local authorities.
- **Engaging in High-Risk Activities:** I agree to refrain from engaging in any sporting, recreational, or adventure activity against the advice or direction of the off-campus activity leader, local authorities, or a qualified instructor. When participating in a permissible activity, I agree to follow the rules and procedures of a recognized governing body for that sport or activity. I understand that my insurance may exclude coverage for any illness or injury sustained while engaging in a wide range of common sporting, recreational or adventure activities and that I am solely responsible for ascertaining what is covered or excluded.
- **Firearms:** I will not possess firearms.
- **Export-Import Regulations:** I will not attempt to leave off-campus locations or enter the USA with materials that legally require collecting, export, and/or import permits, http://www.ora.cornell.edu/export/, including but not limited to archaeological artifacts, geological structures such as rocks, and biological materials such as bones, teeth, feathers, seeds, etc.
- **Research involving human subjects:** I will ensure any applicable research involving human subjects is either exempted from review or approved by Cornell's Institutional Review Board (IRB) before it is initiated: https://www.irb.cornell.edu/

I understand that failure to adhere to these standards of conduct may result in my removal from the off-campus activity without appeal and without credit. I am aware that upon dismissal from the off-campus activity, participants must leave the off-campus site immediately at their own cost. I also understand that some offenses may also subject a participant to formal Cornell disciplinary procedures and/or criminal charges and jail time where the event occurred.

I have read and understand the terms of this Agreement and agree to all terms and conditions on behalf of myself, heirs, representatives, executors, or administrators. I further state that I am of lawful age and legally competent to sign this affirmation and release; that I understand the terms herein are contractual and not mere recital, and that I have signed this document of my own free will.

□ Hold Harmless and General Standards of Conduct*

✔ Save

Contact Us

If you would like to get in touch with us about the site, please fill out our contact form.

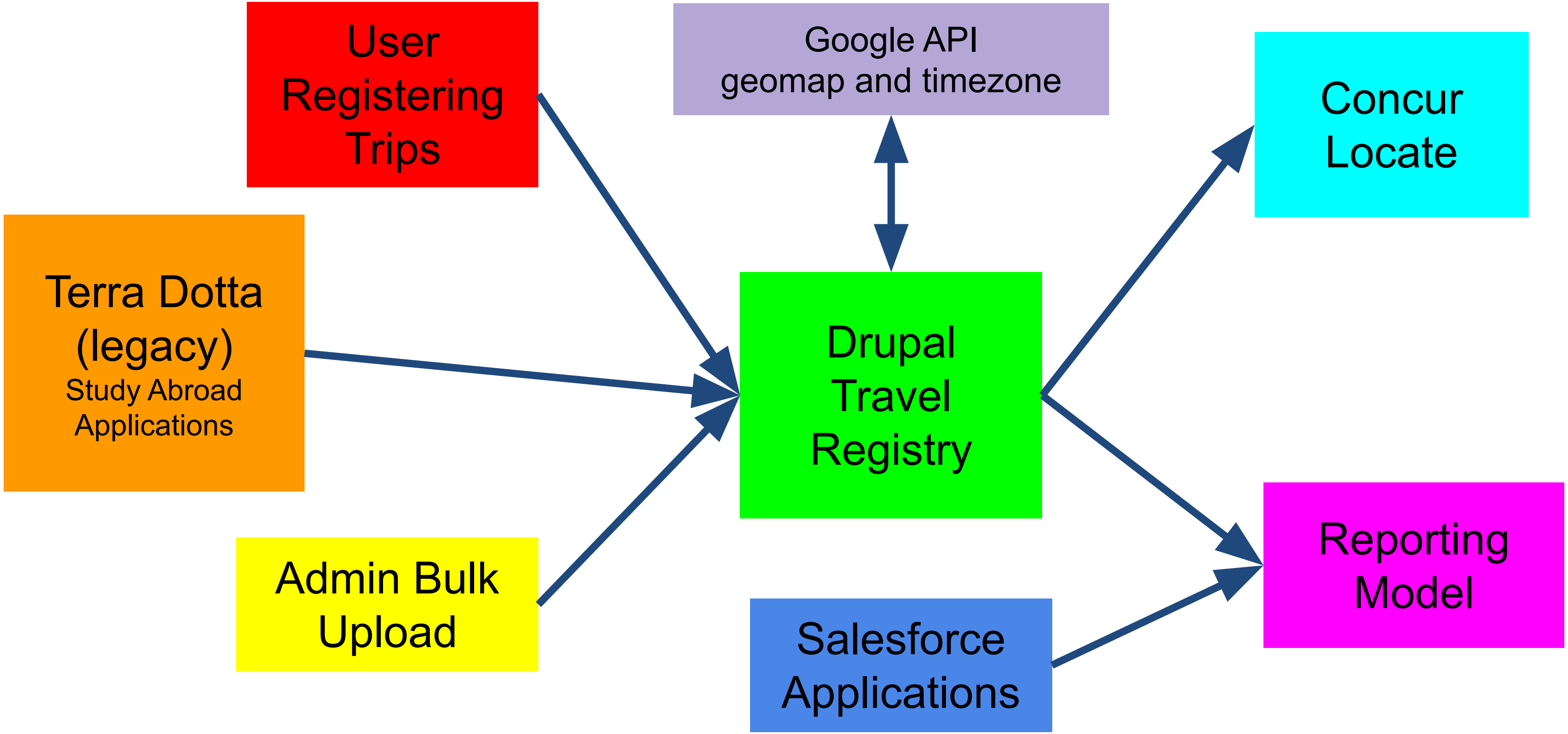
Important Links

- International Health and Safety
- Travel Assistance Services

Accessibility Information

If you have a disability and are having trouble accessing information on this website or need materials in an alternate format, contact web-accessibility@cornell.edu for assistance.

Travel Registry - Architecture



Travel Registry

Multiple points of integrations

1. Legacy data upload via CSV and business logic to convert data. (Terra Dotta)
2. Custom bulk upload form for mass uploading trips into Drupal by site Admins.
3. Google API - geolocation and timezone.
4. API (JSON) connection to Concur Locate for emergency mass notification.
5. JSON API feed to Reporting Model.

CSV upload

- Terra Dotta is being retired and replaced by Salesforce.
- There is no endpoint in Terra Dotta to continuously feed the data out.
- Terra Dotta admins are able to run exports of data to CSV
- Built custom module that could manipulate the raw csv data and import this into Drupal.
- While Terra Dotta is being phased out this is how data will flow from Terra Dotta to the Travel Registry

Bulk upload

- There are many large groups that travel at Cornell that are not associated with a study abroad program.
- In order to get this data into the Travel Registry and through to Concur Locate we created a bulk upload form.
- This form takes all the information about the travellers on these group trip and their location and generates records that are then sent to Concur Locate.

Google API

- In order to consistently identify a travelers whereabouts we need to pass the timezone of the location the traveler is travelling to through the Concur API.
- For reporting purpose we need to identify the travelers country and city. The geofield module does not provide this when filling in the location field.
- Our integration runs on the saving of a node so it works with all of our other integrations.

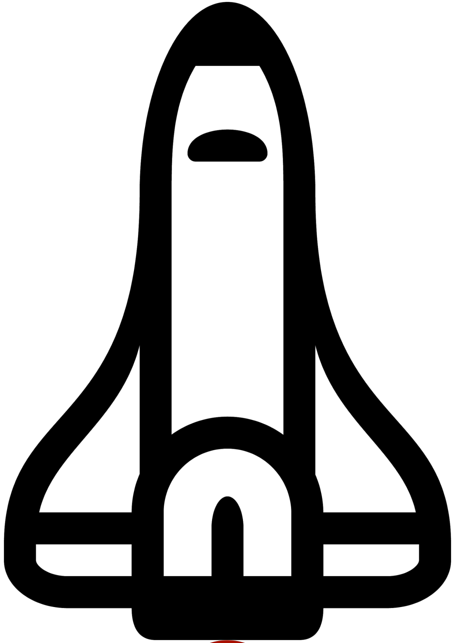
API Connection to Concur Locate

- Concur Locate is Cornell’s mass notification system that allows the send of automated emails and texts when incidents occur in locations abroad
- VIA a JSON api we take any data that is entered into the Travel Registry and in real time update Travellers location data in Concur Locate
- For mass uploads (CSV and Bulk) we could not do this in real time due. Passing and parsing that much data needed to be batched and sent over on cron.

Successes with Implementation

- Use of Drupal content types to gather trip information.
- Multiple integrations to allow for data to flow from multiple sources into Concur Locate.
- Successful integration with a reporting model to allow user ad hoc reporting.

Space Management



Purpose

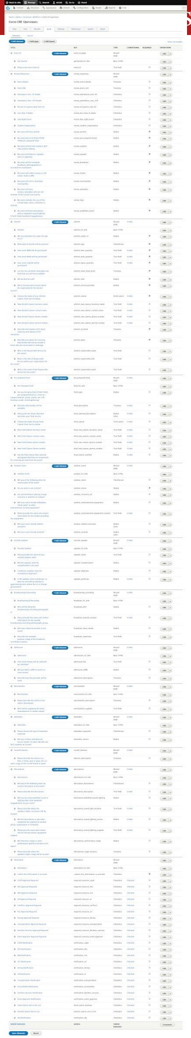
To help facilitate in the allocation and approval of physical spaces on campus to be used for meetings, parties, graduation and all other gatherings that require campus endorsement.

25Live vendor system

- 25Live is an excellent class scheduling and space assignment system.
- 25Live could not meet Cornell’s need for our event registration form. It was not possible to add the branching and business logic associated with this process in 25Lives scheduling system.

Drupal Architecture

- Webform
- Contextual
- Contextual
- Contextual



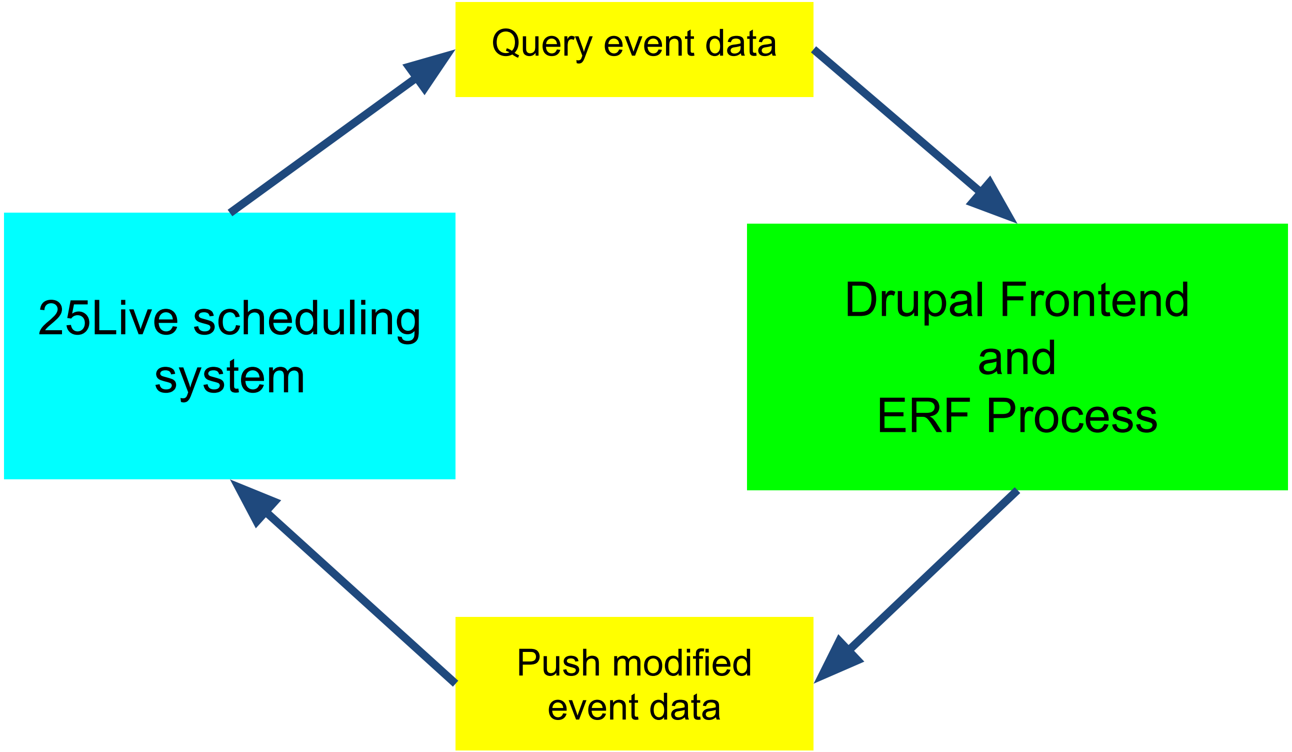
Event ERF Questions

TITLE		KEY	TYPE	CONDITIONAL	REQUIRED	OPERATIONS
Event ID	+ Add element	event_id_page	Wizard page			Edit
Get Started		get-started_1d_title	Basic HTML			Edit
Please enter your event ID		event_id	Text field		☐	Edit
Review Responses	+ Add element	review_responses	Wizard page			Edit
Event Details		review_event_details	Textarea		☐	Edit
Event EMI		review_event_emi	Textarea		☐	Edit
[illegible]		[illegible]	Checkbox		☐	Edit
[illegible]		[illegible]	Checkbox		☐	Edit
[illegible]		[illegible]	Checkbox		☐	Edit
Less than 5 Weeks		review_less_than_5_weeks	Checkbox		☐	Edit
Late Night Event		review_late_night_event	Checkbox		☐	Edit
Student Organization		review_student_organization	Checkbox		☐	Edit
My event will have alcohol		review_alcohol	Radios		☑	Edit
[illegible]		[illegible]	Radios		☑	Edit

Live Demo

2019-AAAAMR

Space Management - Architecture



Query event data

Drupal Frontend
and
ERF Process

Push modified
event data

25Live scheduling
system

Workflow and our integration

- When a user comes to the ERF they are prompted to enter their event ID. This queries 25Live through its API and gets the event information as XML.
- We check this information to see if a user has access to submit an ERF or if an ERF has already been submitted for the given event.
- A series of preconditions are checked and flagged.
- We propulate some of the key questions asked in 25Live which will then allow the user to follow branching logic through the ERF webform.

Workflow and our integration

- Upon the saving of a webform submission a series of custom logic is run
- Based on the answer to the webform results a series of notifications or approval tasks are added to the event along with all of the responses in the webform.
- Once we have correctly updated the event XML with the answer we pass this information back to 25Live.

Workflow and our integration

- If we successfully pass the information our process is complete and 25Live takes over.
- If not we requeue the user's answer to push across on cron. There are a few reasons this would fail to push the primary one is if someone is editing the event in 25Live at the time we are trying to push back our XML edits.

Successes with Implementation

- How we configured the webform and the use of conditional fields allow for business logic to be stored in configuration.
  - As long as there are no major changes this can be done through Drupal config.
- The backend code has been simplified to react to the webform submissions results instead of hardcoding in values
  - Use of custom config entities allow for config over hard coding values.

Questions?

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- Everywhere else: sbbutkcin

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