Governance co-lab

Role Sheet

Team:
Data Platform
Role:
Data Engineering Representative

Role Number: 1

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: Data Platform</td><td>Role: Data Engineering Representative</td></tr>
<tr><td>About the team:
The data platform has served as the central data team for Rainbow Road for a few years. This team is responsible for ingesting data into the central data warehouse, transforming it, testing it, and serving up final data to downstream users. The team contains a wealth of technical knowledge and cultivates a mature data practice. In recent years they have received more requests for data work than they can handle, and have had to strictly prioritize work. Data that flows through the data warehouse goes through their mature processes, but less and less of the organization's data has been going through these processes.</td><td>About the role:
The data engineers are responsible for ingesting data into the data warehouse. Data comes from a wide variety of sources – other databases for custom applications, APIs, spreadsheets, etc. More and more sources have been less structured recently (custom spreadsheets instead of application databases), leading to more fragile data pipelines and increased data quality issues. Many requests for bringing data into the warehouse are for a small amount of data that will serve only a small number of users, and these requests have to be deprioritized as the team's limited resources are focused on the work that will have the biggest impact and serve the most users.</td></tr>
<tr><td>Team's top priorities for Mesh migration
1. Data Platform's mature data processes should be continued and expanded to cover all parts of the mesh</td><td>Role's top priorities for Mesh migration
1. Established data engineering processes should not be dropped, but rather expanded to apply to all ingested data</td></tr>
<tr><td>The team's strengths
• Technical knowledge/skills
• Mature data practices/processes
• Procurement of software applications & services</td><td>The role's strengths
• Ingesting data from a variety of sources and ensuring the resulting data is standardized, clean, and trustworthy</td></tr>
<tr><td>The team's weaknesses
• Lack specialized domain knowledge sometimes needed for managing some data
• Unable to fulfill all requests in a timely manner, leading to many stakeholders circumventing these mature data processes</td><td>The role's weaknesses
• Ingest processes are complicated and often not transparent to the end user
• Only data engineers on the central team are authorized to maintain the ETL pipelines, causing bottlenecks</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team's Secret Mission
All data, no matter which project it is in, must continue to follow the established best practices that the data platform team has used for data ingest, transformation, and testing.</td><td>Role's Secret Mission
The final policies commit to hiring more data engineers for each part of the Mesh, ensuring adequate resources for all projects to follow established data ingest processes.</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
Data Platform
Role:
Analytics Engineering Representative

Role Number: 2

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: Data Platform</td><td>Role: Analytics Engineering Representative</td></tr>
<tr><td>About the team:
The data platform has served as the central data team for Rainbow Road for a few years. This team is responsible for ingesting data into the central data warehouse, transforming it, testing it, and serving up final data to downstream users. The team contains a wealth of technical knowledge and cultivates a mature data practice. In recent years they have received more requests for data work than they can handle, and have had to strictly prioritize work. Data that flows through the data warehouse goes through their mature processes, but less and less of the organization's data has been going through these processes.</td><td>About the role:
The analytics engineers are responsible for maintaining the dbt project (historically the only project, but now just the data platform "hub" project), modeling and transforming all data that has gone through the data engineering ingest process, coordinating with stakeholders for the design of final data marts and data quality tests, and running/monitoring dbt jobs to diagnose and fix any issues in the transformation pipelines. While analytics engineers have more contact with stakeholders than data engineers, as well as more domain knowledge, they do not have the capacity to engage with analysts to the full extent needed</td></tr>
<tr><td>Team's top priorities for Mesh migration
1. Data Platform's mature data processes should be continued and expanded to cover all parts of the mesh</td><td>Role's top priorities for Mesh migration
1. All dbt projects in the mesh should follow the rules & best practices established by the data platform project</td></tr>
<tr><td>The team's strengths
• Technical knowledge/skills
• Mature data practices/processes
• Procurement of software applications & services</td><td>The role's strengths
• Data modeling & institutional knowledge
• Domain + technical knowledge
• Communication w/ stakeholders & engineers (serving as a bridge)</td></tr>
<tr><td>The team's weaknesses
• Lack specialized domain knowledge sometimes needed for managing some data
• Unable to fulfill all requests in a timely manner, leading to many stakeholders circumventing these mature data processes</td><td>The role's weaknesses
• Less domain knowledge than downstream end users & analysts
• Technical knowledge highly specialized in dbt & SQL – less flexible in tool choice
• 1st to be blamed for data quality issues</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team's Secret Mission
All data, no matter which project it is in, must continue to follow the established best practices that the data platform team has used for data ingest, transformation, and testing.</td><td>Role's Secret Mission
The final policies ensure that all dbt projects have dedicated analytics engineers experienced in dbt, who still sit on a central analytics engineering team but are embedded across the organization.</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
Finance & Marketing
Role:
Director of Finance

Role Number: 3

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: Finance & Marketing</td><td>Role: Director of Finance</td></tr>
<tr><td>About the team:
The Finance & Marketing team is functionally two teams within the organization, but since they often share data and depend on each other's datasets, they will share a dbt project. Analysts usually work with data in their own tools, and have historically consumed data from the data warehouse or managed data independently in other tools. The Finance team is responsible for donations, fundraising, grants, managing expenses, taxes, etc. The Marketing team is responsible for conducting outreach campaigns on traditional & social media platforms, and organizing events. Ultimately, these teams are responsible for ensuring Rainbow Road has enough resources to continue to operate.</td><td>About the role:
The Finance Director is ultimately responsible for ensuring Rainbow Road operates efficiently, and that every donated dollar goes towards rescuing more animals. While the director sees the benefit of dbt for streamlining data for reports and has relied on data marts produced by the data platform team, they know that their team is not comfortable working independently within a dbt project. Most finance analysts will export a table to a spreadsheet before continuing to work with the data. While legacy marts were migrated to the new Finance & Marketing project, a true migration would involve recreating logic currently in spreadsheets with SQL – a heavy lift.</td></tr>
<tr><td>Team's top priorities for Mesh migration
1. Finance & Marketing analysts should be able to continue to use their tools of choice
2. Dedicated training on dbt, SQL, git</td><td>Role's top priorities for Mesh migration
1. Managing this new dbt project should require as little of the finance team's time as possible, with logic allowed to remain in spreadsheets (not migrated into dbt)</td></tr>
<tr><td>The team's strengths
• Highly specialized domain knowledge
• Reports are highly valued by the organization's leadership</td><td>The role's strengths
• High level of authority over all standard practices in the Finance team
• High level of influence within the org</td></tr>
<tr><td>The team's weaknesses
• Not as familiar with technical skills required to manage a dbt project</td><td>The role's weaknesses
• Producing required metrics requires a lot of time and manual effort by specialized staff
• Responsible (and blamed) for frequent data quality issues in high-visibility reports</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team's Secret Mission
The final policies should allow for two separate dbt projects: a Finance project and a Marketing project, with data still able to be passed between the two. After all, they are different domains!</td><td>Role's Secret Mission
The final policies should not result in a net increased spend/budget for the data infrastructure (on tools or on people).</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
Finance & Marketing
Role:
Lead Marketing Analyst

Role Number: 4

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: Finance & Marketing</td><td>Role: Lead Marketing Analyst</td></tr>
<tr><td>About the team:
The Finance & Marketing team is functionally two teams within the organization, but since they often share data and depend on each other's datasets, they will share a dbt project. Analysts usually work with data in their own tools, and have historically consumed data from the data warehouse or managed data independently in other tools. The Finance team is responsible for donations, fundraising, grants, managing expenses, taxes, etc. The Marketing team is responsible for conducting outreach campaigns on traditional & social media platforms, and organizing events. Ultimately, these teams are responsible for ensuring Rainbow Road has enough resources to continue to operate.</td><td>About the role:
The marketing team uses a wide variety of data tools, including dbt. Marketing analysts are expected to be able to update the logic in dbt projects when needed, though they will coordinate with analytics engineers for more complicated projects. Marketing data projects frequently require near-real time data to be available, and traditionally the processes around working with the central data warehouse have been too slow for their use cases. The team has been better served by pre-baked analytics within the operational tools they use, and more manual processes have been sufficient for gathering this data for historical reports as needed.</td></tr>
<tr><td>Team's top priorities for Mesh migration
1. Finance & Marketing analysts should be able to continue to use their tools of choice
2. Dedicated training on dbt, SQL, git</td><td>Role's top priorities for Mesh migration
1. Any change in processes around marketing data management should not impact the existing reports & dashboards.</td></tr>
<tr><td>The team's strengths
• Highly specialized domain knowledge
• Reports are highly valued by the organization's leadership</td><td>The role's strengths
• Familiar with dbt models in legacy project related to marketing data
• Comfortable with SQL, data modeling for marketing data (e.g. funnels)</td></tr>
<tr><td>The team's weaknesses
• Not as familiar with technical skills required to manage a dbt project</td><td>The role's weaknesses
• Limited to pre-baked reports when data is kept within other applications, so unable to answer more specific questions</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team's Secret Mission
The final policies should allow for two separate dbt projects: a Finance project and a Marketing project, with data still able to be passed between the two. After all, they are different domains!</td><td>Role's Secret Mission
Any marketing sources should be managed purely within the marketing & finance project, without needing to go through data platform, so that the data platform's processes don't slow it down.</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
People Ops
Role:
Director of HR

Role Number: 5

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: People Ops</td><td>Role: Director of HR</td></tr>
<tr><td>About the team:
The People Ops team is responsible for managing all human resources & relationships – employees, recruiting, contractors, volunteers, partner organizations, high-level donors, etc. This team is brand new to dbt – they have not previously consumed data from the data warehouse (though they have used dashboards that relied on data warehouse marts). Instead, they typically work within a set of specialized applications, and if they need a report not offered by the application they will submit a request to the central data team (their work is frequently prioritized due to high importance and lack of internal people ops resources).</td><td>About the role:
The Director of HR is ultimately responsible for ensuring that the people of Rainbow Road are able to do their jobs – that they are supported, a good fit for their roles, and get paid on time. They are also responsible for reporting on key metrics around organizational priorities like diversity, pay equity, employee retention, upskilling & training, etc. These reports are only required on a quarterly basis, so manually creating the reports is usually sufficient, and the daily cadence of the data warehouse is usually overkill. The HR department has limited resources, and analysts spend most of their time focused on operational tasks.</td></tr>
<tr><td>Team’s top priorities for Mesh migration
1. Dedicated support from the data platform team for creating and maintaining this new dbt project</td><td>Role’s top priorities for Mesh migration
1. The data platform team performs any migration of dbt models related to HR dashboards and creates key HR metrics</td></tr>
<tr><td>The team’s strengths
• Highly specialized domain knowledge
• Reports are highly valued by the organization’s leadership</td><td>The role’s strengths
• Can impact processes around hiring, people management, training
• Visibility into many parts of the organization</td></tr>
<tr><td>The team’s weaknesses
• Lack technical skills
• Unprepared to manage a dbt project</td><td>The role’s weaknesses
• Highly reliant on the data platform team for custom reporting needs</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team’s Secret Mission
The final policies should allow for the People Ops project to be removed and all People Ops related dbt models to be managed within the data platform project.</td><td>Role’s Secret Mission
The final policies must require existing employee’s job duties to not be expanded beyond their original scope without going through HR processes to update title, descriptions, salary, etc</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
People Ops
Role:
VP of Partnerships

Role Number: 6

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: People Ops</td><td>Role: VP of Partnerships</td></tr>
<tr><td>About the team:
The People Ops team is responsible for managing all human resources & relationships – employees, recruiting, contractors, volunteers, partner organizations, high-level donors, etc. This team is brand new to dbt – they have not previously consumed data from the data warehouse (though they have used dashboards that relied on data warehouse marts). Instead, they typically work within a set of specialized applications, and if they need a report not offered by the application they will submit a request to the central data team (their work is frequently prioritized due to high importance and lack of internal people ops resources).</td><td>About the role:
The VP of Partnerships is the one person responsible for managing people relationships outside of the organization. While they do benefit from consuming data reports and get benefit from seeing trends over time, they have never been responsible for producing reports (nor do they currently have dedicated analysts who could produce such reports). Currently, their analytical needs are served by the operational tools they use, or reports produced by the data platform team (and sometimes other teams). They spend most of their time talking to representatives from other organizations and facilitating connections.</td></tr>
<tr><td>Team’s top priorities for Mesh migration
1. Dedicated support from the data platform team for creating and maintaining this new dbt project</td><td>Role’s top priorities for Mesh migration
1. This migration should make it easier to connect partners with the data and resources they need (definitely not harder)</td></tr>
<tr><td>The team’s strengths
• Highly specialized domain knowledge
• Reports are highly valued by the organization’s leadership</td><td>The role’s strengths
• Can connect engineers and analysts with helpful new data sources & tools
• Can identify new use cases for data products (reports, dashboards, etc), expanding their impact</td></tr>
<tr><td>The team’s weaknesses
• Lack technical skills
• Unprepared to manage a dbt project</td><td>The role’s weaknesses
• Unable to independently produce reports or contribute to data pipelines</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team’s Secret Mission
The final policies should allow for the People Ops project to be removed and all People Ops related dbt models to be managed within the data platform project (just like in the legacy project).</td><td>Role’s Secret Mission
The final policies must ensure that there is an easy to navigate and well documented mesh-wide data catalog that makes it easy to identify any data products that could be reused for other purposes. All data marts should be documented by appropriate SMEs within the domain, so descriptions are specific & useful.</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
Rescue Operations
Role:
Lead Analyst (Southeast Shelters)

Role Number: 7

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: Rescue Operations</td><td>Role: Lead Analyst (Southeast Shelters)</td></tr>
<tr><td>About the team:
The Rescue Operations team is composed of many highly specialized analysts focused on particular regions and parts of the rescue operation cycle (from rescue, then shelter & foster, to adoption). Analysts serve both analytical and operational use cases, have highly specific domain knowledge, and enough technical skills to accomplish a variety of tasks, including modifying dbt models, adding data quality tests, creating reports, creating dashboards, creating data intake forms, designing low/no-code web apps, and more. Analysts are distributed across operational teams and are often the most technical member of their team, but will rely on the data platform team for additional technical support.</td><td>About the role:
The lead analyst for Southeast Shelters is focused on creating reports about the performance of shelters operating in the Southeastern states, tracking key metrics required for fundraising & grant efforts, as well as providing operational support to enable shelters to better predict trends and allocate resources. The analyst knows that most data comes from custom forms or spreadsheets created by shelter staff, which can frequently have data entry errors, but there is not currently another solution that provides enough flexibility & customization. The shelter staff rely on reports from analysts when submitting purchase orders for supplies, scheduling volunteers, etc – so this role is high impact and high risk.</td></tr>
<tr><td>Team’s top priorities for Mesh migration
1. A dedicated rescue operations dbt project should allow for greater flexibility and faster time to insights, and have any limitations that would make analysts’ jobs harder</td><td>Role’s top priorities for Mesh migration
1. Ownership over a dbt project should allow analysts shorten the feedback loop from data entry by shelter staff to reports/insights delivered to shelter staff</td></tr>
<tr><td>The team’s strengths
• Highly specialized domain knowledge
• Most directly impactful work that allows other areas of the organization to see the value of data
• Versatile technical skillsets</td><td>The role’s strengths
• The analyst can touch (and change) any part of the data lifecycle, from data collection to reports
• Can quickly fulfill requests from a focused group of stakeholders</td></tr>
<tr><td>The team’s weaknesses
• No experience managing a dbt project
• Extremely complex web of transformations</td><td>The role’s weaknesses
• Highly reliant on unstable data sources
• Transformation logic hard to navigate</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team’s Secret Mission
The final policies should allow for Rescue Operations to consume high quality data marts from any other dbt project, as well as retain independent control over transformations of sources specific to rescue operations.</td><td>Role’s Secret Mission
The final policies must include solutions that will enable analysts to work with more stable reliable data sources (e.g. by providing better application/data collection options for shelter staff’s core needs)</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
Rescue Operations
Role:
Lead Analyst (Northeast Adoptions)

Role Number: 8

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: Rescue Operations</td><td>Role: Lead Analyst (Northeast Adoptions)</td></tr>
<tr><td>About the team:
The Rescue Operations team is composed of many highly specialized analysts focused on particular regions and parts of the rescue operation cycle (from rescue, then shelter & foster, to adoption). Analysts serve both analytical and operational use cases, have highly specific domain knowledge, and enough technical skills to accomplish a variety of tasks, including modifying dbt models, adding data quality tests, creating reports, creating dashboards, creating data intake forms, designing low/no-code web apps, and more. Analysts are distributed across operational teams and are often the most technical member of their team, but will rely on the data platform team for additional technical support.</td><td>About the role:
The lead analyst for Northeast Adoptions is focused on creating reports about the adoption of animals in the Northeastern states, tracking key metrics required for fundraising & grant efforts, as well as providing operational support to increase the number of successful adoptions. This involves navigating a complex legal environment, record keeping, communicating with a variety of external organizations (including sending & receiving data), as well as coordinating with marketing around adoption events and telling stories about successful adoptions. Analysts tend to default to more manual tools & processes, and use dbt only for final regular reports, though they would like to work more in dbt.</td></tr>
<tr><td>Team’s top priorities for Mesh migration
1. A dedicated rescue operations dbt project should allow for greater flexibility and faster time to insights, and have any limitations that would make analysts’ jobs harder</td><td>Role’s top priorities for Mesh migration
1. Analysts should receive support and training in a wide variety of technical tools, including dbt, but also data engineering workflows for ingest and reporting tools.</td></tr>
<tr><td>The team’s strengths
• Highly specialized domain knowledge
• Most directly impactful work that allows other areas of the organization to see the value of data
• Versatile technical skillsets</td><td>The role’s strengths
• The analyst can touch (and change) any part of the data lifecycle, from data collection to reports
• Can quickly fulfill requests from a focused group of stakeholders</td></tr>
<tr><td>The team’s weaknesses
• No experience managing a dbt project
• Extremely complex web of transformations</td><td>The role’s weaknesses
• Highly reliant on unstable data sources
• Transformation logic hard to navigate</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team’s Secret Mission
The final policies should allow for Rescue Operations to consume high quality data marts from any other dbt project, as well as retain independent control over transformations of sources specific to rescue operations.</td><td>Role’s Secret Mission
The final policies must include support for training for all those new to dbt and maintaining a dbt project – both generic training on the tool from a high quality provider and specialized training on working in Rainbow Road’s environment/toolset.</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
Data Leadership
Role:
Head of Data

Role Number: 9

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: Data Leadership</td><td>Role: Head of Data</td></tr>
<tr><td>About the team:
The Data Leadership team is composed of Rainbow Road's Head of Data and the data architect they hired to consult on the data mesh design and migration. Ultimately they are responsible for ensuring the migration happens smoothly, and they can report to the rest of the executive leadership that it has had a measurable and positive impact on how the Rainbow Road operates – driving both better outcomes for more rescued animals and increasing net available operating funds. This team is in charge of moderating the discussion at council sessions, keeping the council on track, and ultimately delivering results in the form of a final set of policies that will determine how the data mesh operates moving forward. They are responsible for documenting the policies, assigning other responsibilities, and conducting the final vote.</td><td>About the role:
The Head of Data started as the leader for the central data team, when the centralized model was the best way to consolidate and organize the organization's data resources. They have seen how the data team became increasingly valued and relied upon by other parts of the organization, to the point that the single data team became overloaded and was unable to fully serve the Rainbow Road to the extent it needed. They saw the data team suffer the consequences of other teams circumventing established processes (due to lack of capacity in the data team). They see the data mesh as a way to distribute the data team's knowledge and resources across the organization, allowing the central team to focus on a few key priorities while not being a bottleneck for other other data work that needs to get done.</td></tr>
<tr><td>Team's top priorities for Mesh migration
1. A final set of policies, processes, and governance models are decided on, which will allow data professionals to know how to work within the mesh of multiple dbt projects</td><td>Role's top priorities for Mesh migration
1. The organization shifts from a centralized model for the data team to a more distributed & embedded model, empowering any team to work with data</td></tr>
<tr><td>The team's strengths
• Ultimate authority over all data operations, as they are responsible for organizing the mesh migration</td><td>The role's strengths
• Managing people within the context of doing data work</td></tr>
<tr><td>The team's weaknesses
• Less familiarity with specific pipelines & transformations – must rely on others to be SMEs for their domains</td><td>The role's weaknesses
• Historically has had no authority over other departments in the organization, must rely on soft influence</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team's Secret Mission
The final documented policies must be voted on – and passed with a majority of the council voting in favor of them.</td><td>Role's Secret Mission
The final (passed) policies must include a way for the parts of the organization involved in the data mesh to continue to govern themselves – with some form of the council continuing to meet and passing future policies.</td></tr>
</table>

Governance co-lab

Role Sheet

Team:
Data Leadership
Role:
Data Architect Consultant

Role Number: 10

This side up until simulation game begins

<table>
<tr><td colspan="2">Public Information (can be shared with the council)</td></tr>
<tr><td>Team: Data Leadership</td><td>Role: Data Architect (Consultant)</td></tr>
<tr><td>About the team:
The Data Leadership team is composed of Rainbow Road's Head of Data and the data architect they hired to consult on the data mesh design and migration. Ultimately they are responsible for ensuring the migration happens smoothly, and they can report to the rest of the executive leadership that it has had a measurable and positive impact on how the Rainbow Road operates – driving both better outcomes for more rescued animals and increasing net available operating funds. This team is in charge of moderating the discussion at council sessions, keeping the council on track, and ultimately delivering results in the form of a final set of policies that will determine how the data mesh operates moving forward. They are responsible for documenting the policies, assigning other responsibilities, and conducting the final vote.</td><td>About the role:
The Data Architect was hired to design an initial data mesh architecture using multiple dbt projects, help manage the migration to multiple dbt projects, develop a roadmap for future developments, and advise on a more distributed data governance structure. These plans are included in the "Architect's Handbook", which the data architect has and can share with the rest of the council. Since the consultant is new to the organization, they are relying on the rest of the council to continue to contribute their domain expertise – the original mesh design was created after conducting interviews with all major stakeholders to evaluate their needs, assess their strengths and weaknesses, and balance competing priorities. Together with the Head of Data, they will guide the council in making the planned mesh architecture a reality.</td></tr>
<tr><td>Team's top priorities for Mesh migration
1. A final set of policies, processes, and governance models are decided on, which will allow data professionals to know how to work within the mesh of multiple dbt projects</td><td>Role's top priorities for Mesh migration
1. The migration to a distributed data architecture of multiple dbt projects goes smoothly and incorporates as many parts of the organization as possible</td></tr>
<tr><td>The team's strengths
• Ultimate authority over all data operations, as they are responsible for organizing the mesh migration</td><td>The role's strengths
• Experience designing data architectures that look at the bigger picture, balancing competing needs, strengths, & weaknesses across departments</td></tr>
<tr><td>The team's weaknesses
• Less familiarity with specific pipelines & transformations – must rely on others to be SMEs for their domains</td><td>The role's weaknesses
• Lacks institutional knowledge and familiarity with different parts of the organization (and their historical context)</td></tr>
<tr><td colspan="2">FOLD HERE
Private Information (can be shared with teammate, but not with the larger council)</td></tr>
<tr><td>Team's Secret Mission
The final documented policies must be voted on – and passed with a majority of the council voting in favor of them.</td><td>Role's Secret Mission
The final (passed) policies must should adhere to the original plan specified in the Architect's Handbook (to the extent it is actually specified).</td></tr>
</table>

Architect’s Handbook

A brief history of Rainbow Road

Rainbow Road started as a local rescue, bringing pets from rural kill shelters into the city to ease the adoption process. They were successful at matching more pets with loving homes, and soon partnered with other nearby rescues to form a regional adoption network.

Rainbow Road was able to better serve the many adoption centers by centralizing logistics for mass distribution of resources and coordinating across partners. This worked great for a time, and allowed the rescue centers to focus on what they did best: the operational side of rescuing pets.

Rainbow Road started using a central data warehouse to consolidate information about the animals being rescued (including important information like their medical records and available history), the volunteers helping to take care of these animals, facilities where animals were temporarily housed, and more.

Rainbow Road soon adopted dbt to organize all of the needed transformations in the data warehouse. This enabled them to more quickly and accurately report statistics about the pets rescued, which allowed them to get more funding, and then to expand into other states and help even more animals.

This centralized model worked so well that within a few more years Rainbow Road grew to operate at the national level. Other parts of the organization started wanting to use dbt and the data warehouse too - for tracking donations, analyzing marketing efforts, reporting key performance metrics for each adoption center, and more.

Now the organization has grown enough that data-oriented teams are more independent, different regions have different needs, and the dbt project’s DAG has started to resemble an unmanageable spaghetti monster.

Data is an important part of keeping the pet rescue running & funded, so Rainbow Road hired a Data Architect consultant to evaluate the growing data infrastructure and advise the data teams. The data architect recommended migrating from the single monolithic dbt project to a dbt mesh of projects, and sketches out an overall design for the different projects. Rainbow Road has outgrown the centralized model, and now it’s time to decentralize (a little? A lot? Only time will tell!)

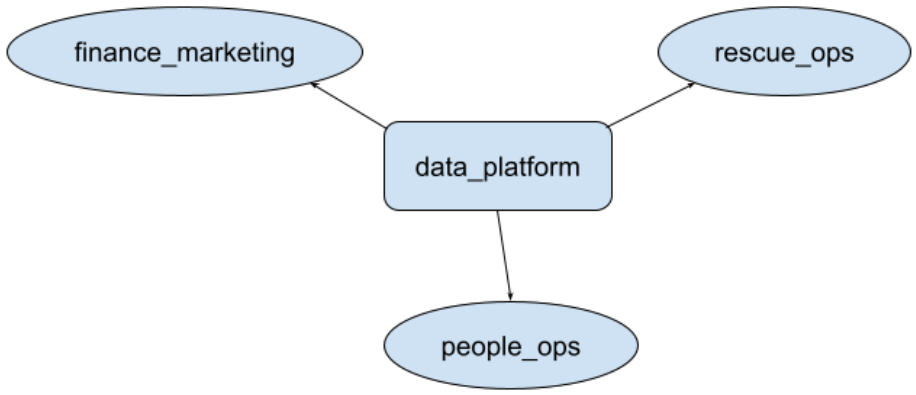
Now representatives from across the organization have been invited by the Data Architect to sit on a Mesh Council that will decide on the policies that will govern the mesh and the processes that people will follow when contributing to any of the dbt projects. Hint: While it’s necessary to lay some foundational ground rules, it would be unrealistic to anticipate every issue. So the council should also establish a process by which future policies can be proposed & adopted.

Plan for the Mesh of dbt projects

In the legacy environment, there was only one dbt project: data_platform. In the new dbt Mesh, this project will persist, but with a reduced number of models as the new dbt projects take ownership of existing models (and also expand to create brand new models). The data_platform project will be the "hub", and contain core datasets needed by multiple departments & domains, as well as any miscellaneous data marts not owned by a dedicated domain project.

An analysis of the legacy data_platform project was done to identify the core domains with enough models and independence within the DAG to justify a new dbt project. As a result of this analysis, 3 new "spoke" candidate projects were identified: rescue_operations, people_ops, and finance_marketing. These projects will be owned & maintained by the departments with the required domain expertise. The models in these "spoke" projects are all considered "downstream" within the DAG.

In order to reduce complexity, especially at the start of the migration, the "hub and spoke" model will be followed: a single central hub project that can be referenced by each of the spoke projects, with the spoke projects only able to reference the hub (not each other).



Moving Forward – roadmap target milestones

The Mesh migration journey will not be a short one – this is a major cultural shift, not just a lift and shift of some dbt models. With that in mind, the roadmap is focused on the people & process changes that need to happen. The model migration into these 3 new spoke projects has already occurred, but the shift to other departments/domains managing these new projects has only just started – the data platform team has been supporting all 4 projects. There are 3 major milestones on the roadmap:

1. A cross-department collaborative governance structure is established to allow for all parts of the business that work in the Mesh to make decisions about the Mesh
2. Domain teams are able to manage their "spoke" projects independently without needing the data platform team's assistance
3. All data professionals are part of the data product lifecycle and can intentionally operate within the mesh (without breaking anything), increasing reliability & trust in data as a resource that drives a significant and positive impact on the organization.

Session Guide

Council Session 1 (10 minutes)

- Introduce yourselves (and your role/team)
- Review your role sheets
- Review the Architect's Handbook
- Establish a governance structure for the council to abide by - what is the process by which an idea becomes a formal policy for the entire data mesh? How will these policies be enacted & enforced?
- Remember, this governance structure can be iterated on, but it should also apply for future council sessions (after the 3rd & final session for this simulation exercise)

Emergency Scenario (5 minutes)

- A Finance analyst updated the logic for a model in the Data Platform project, because a model in the Finance & Marketing project that references the Data Platform model needed the logic change (e.g. altering a case statement).
- This change to the Data Platform model ends up breaking a model in the People Ops & Partnerships project, because it also references the same Data Platform model.
- A People Ops analyst requests that the change to the Data Platform model be reverted until they have time to incorporate the change in logic.

Council Session 2 (10 minutes)

- Outline the overall strategy for your dbt Mesh policies
- The policies should answer these questions in broad strokes:
    - What needs to be the same across all projects in the mesh, vs when do individual projects have autonomy?
    - How does data get shared between projects - what rules must "public" models follow?
    - What will the final project graph look like? Are there additional/removed projects? What are the project dependencies?
    - In the future, how can new projects be created (or split off from an existing project) or existing projects be consolidated?

Cross-Council Sharing (5 minutes)

- Each role is numbered (see the Role Sheet)
- Please convene at the table with the number that matches your role number
- This is your opportunity to strategize with others that share your role, across the other Mesh Councils
- Who is on the path to achieving their secret missions?
- What ideas can you bring back to your Mesh Council?

Council Session 3 (10 minutes)

- Finalize your overall policies, using the governance structure agreed upon in the first session
- Flesh out any component processes as needed, for future policy-making
- Document your policies & processes to the best extent possible
- Hold a final vote on the documented policies & processes as a whole
- Prepare to present out the results

Present your plans (15 minutes total, ~1 min per group)

- How do decisions get made?
- What core decisions were made?
- What problems were solved?
- What problems were not solved?
- What did you learn from the experience?
- What would you do differently next time… or in a real mesh migration situation?

Wrap up

Save your work

- Take a picture of your table's paper pad
- Share it out - slack, social media, etc

Grow your support network

- Stay connected with your Mesh Council
- Join this session's slack channel: #coalesce-peer-exchange-1

Reach out

- Find me on LinkedIn: https://www.linkedin.com/in/jennajordan1/
- Analytics8 at Coalesce: https://www.analytics8.com/dbt-coalesce