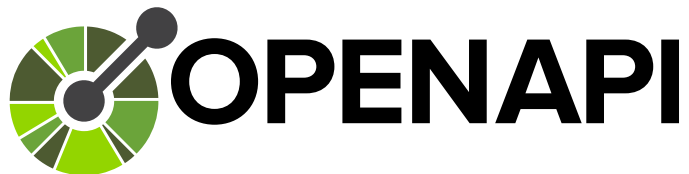
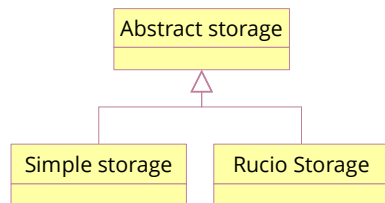




# Execution Broker

SRCNet-0.2  
Sequence diagram

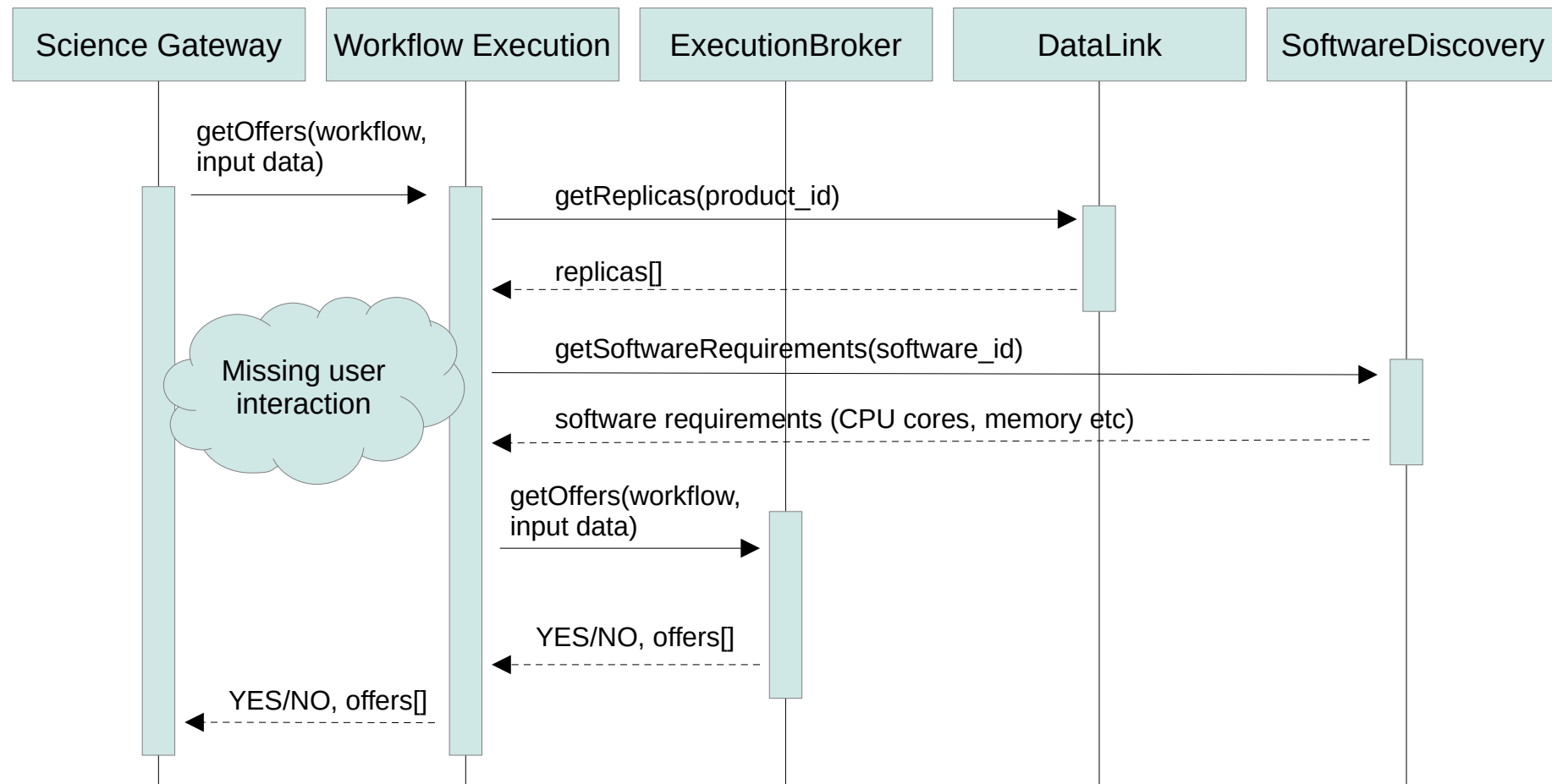
Dave Morris  
Manchester  
University





## Current sequence diagram

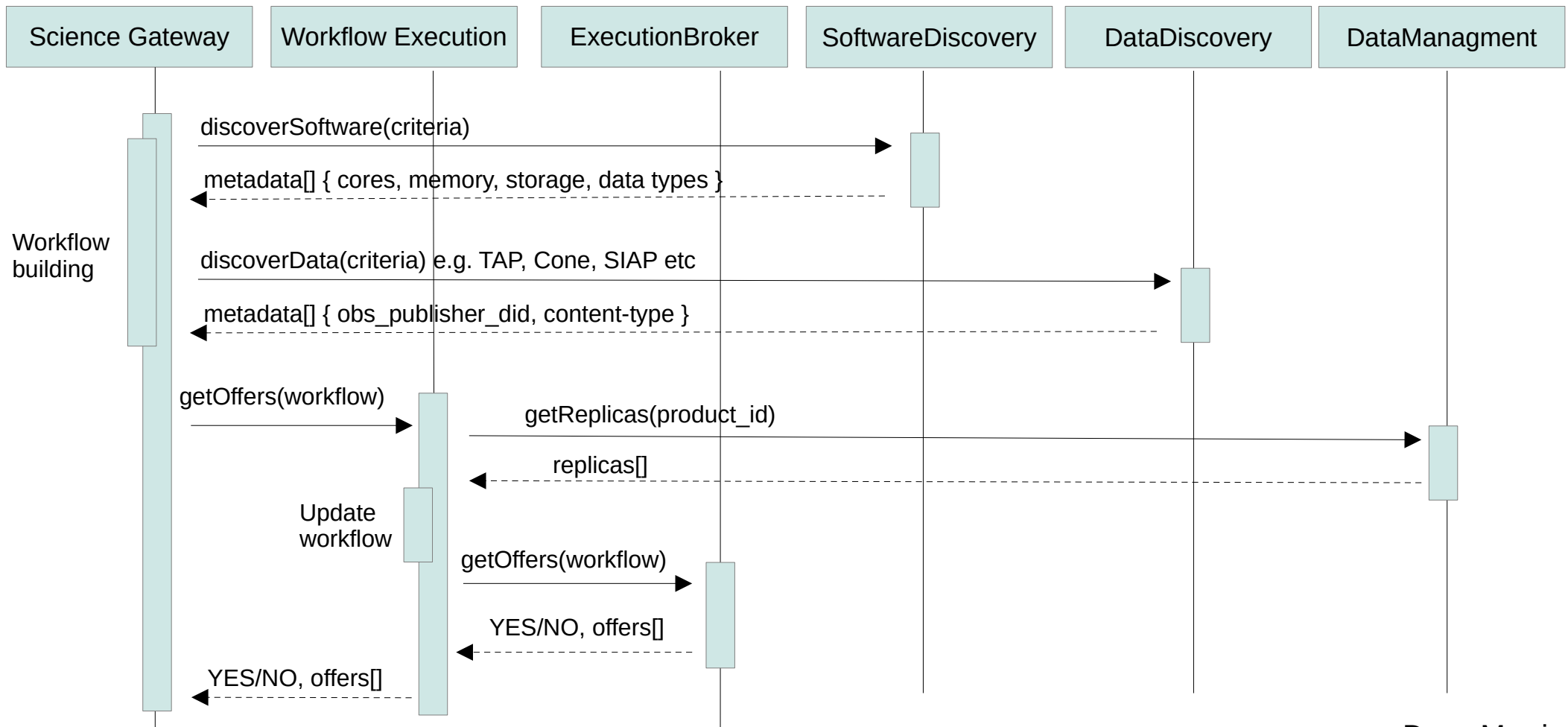
<https://confluence.skatelescope.org/pages/viewpage.action?pageId=311713724>





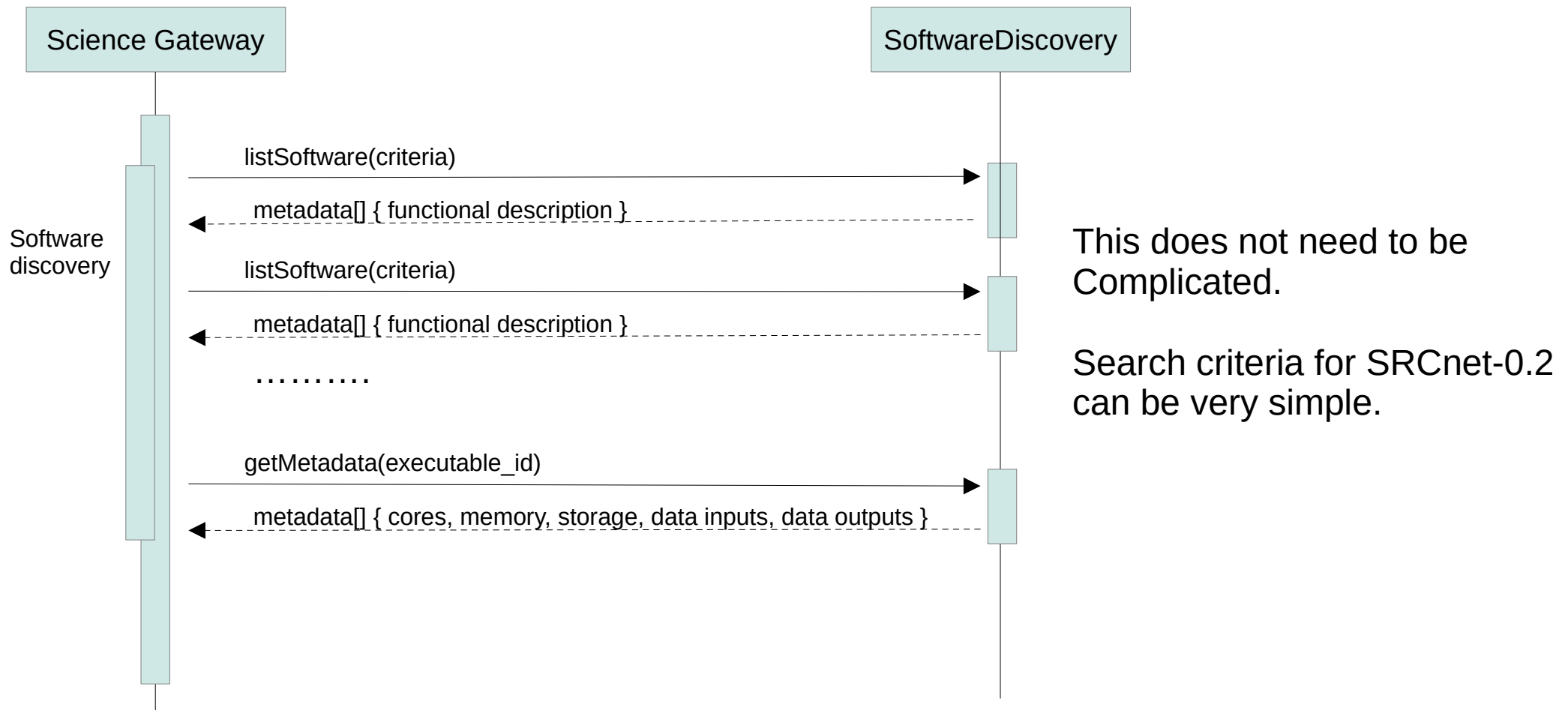
## Revised sequence diagram

Adding user interaction to Software Discovery and workflow building



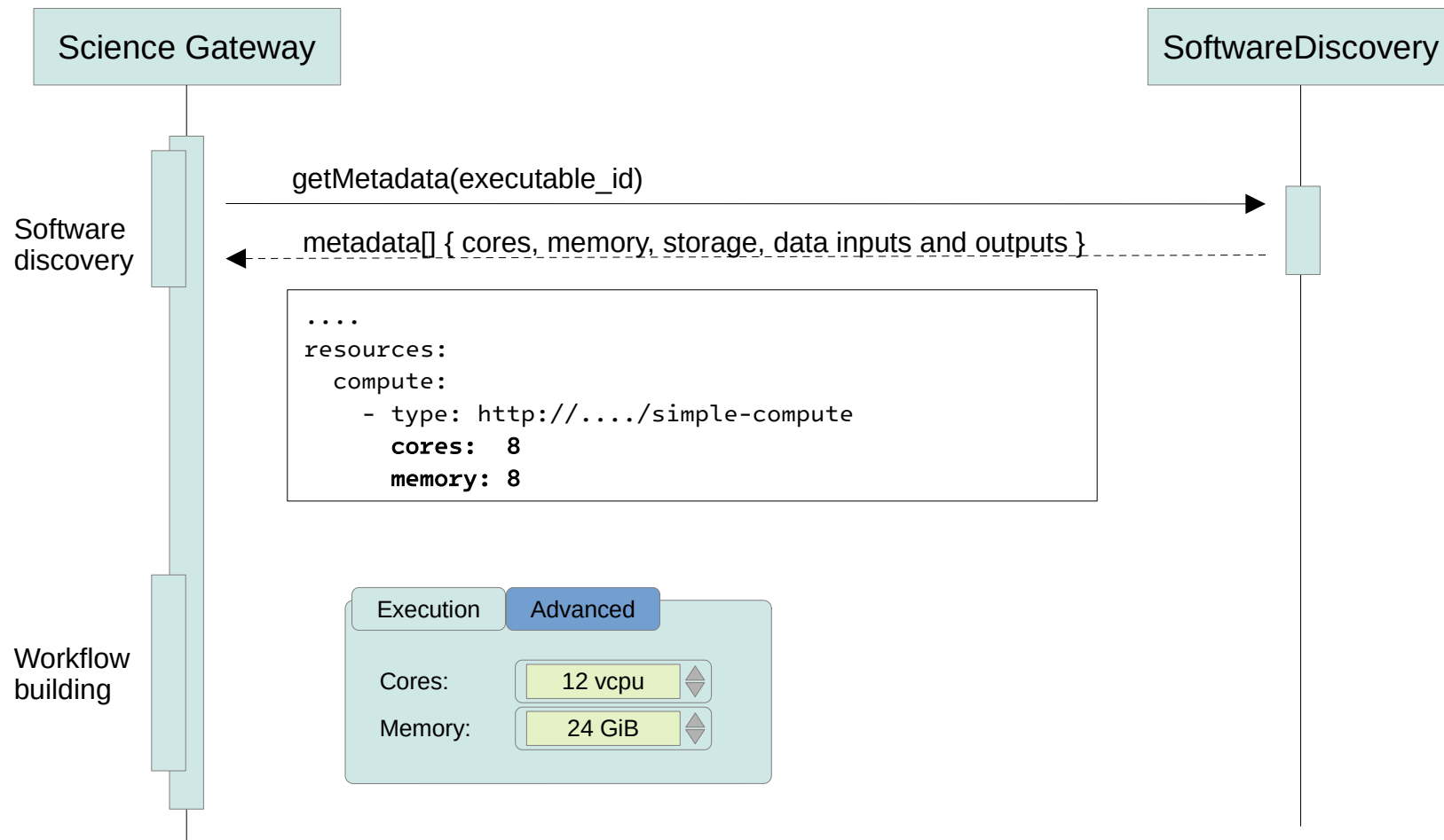


## Conversation between Science Gateway and Software Discovery to select the software Adding user interaction into the Software Discovery process



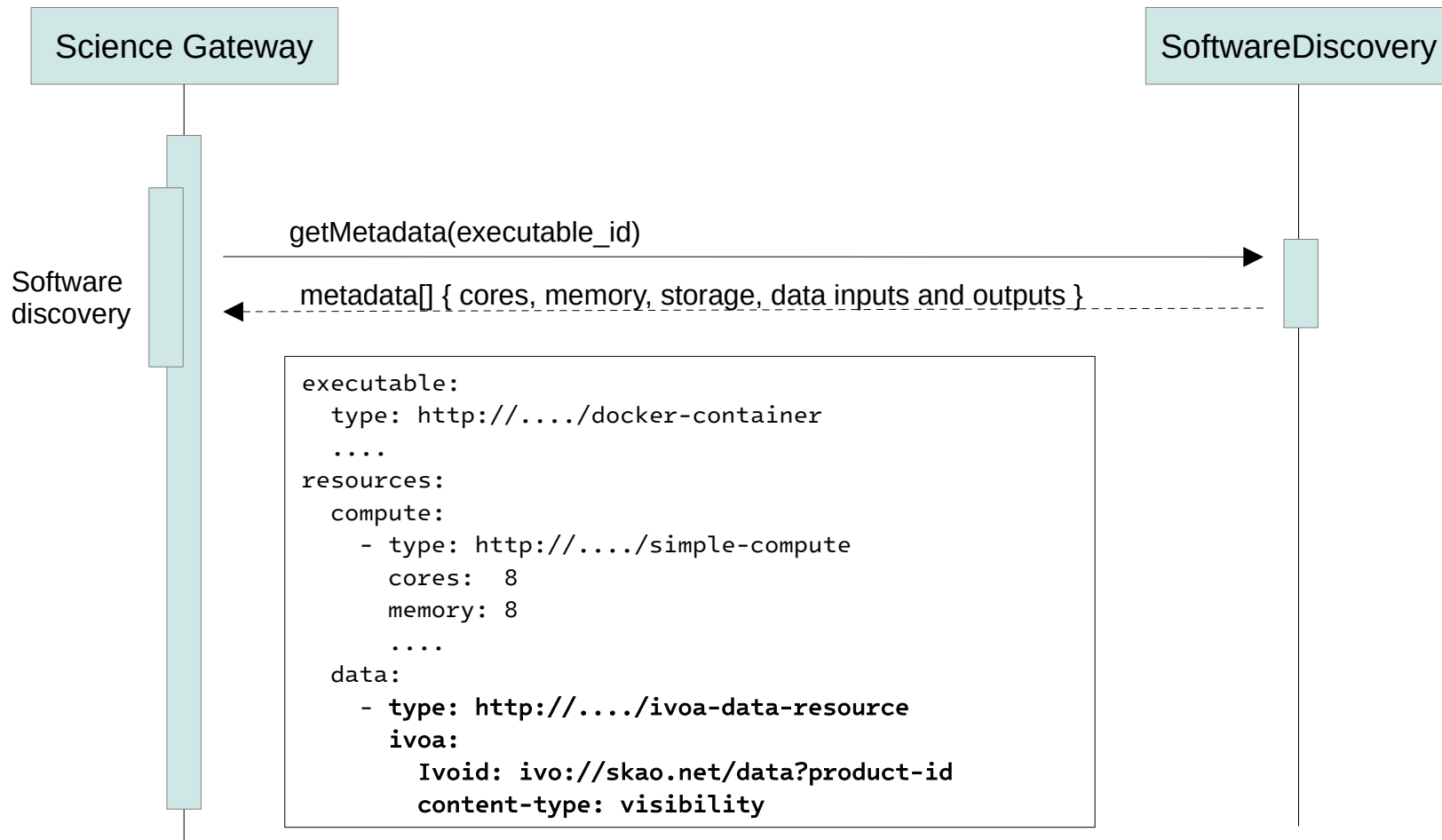


Science Gateway 'advanced' tab allows the user to override the default requirements  
Enabling the user to correct bad defaults or experiment outside the box





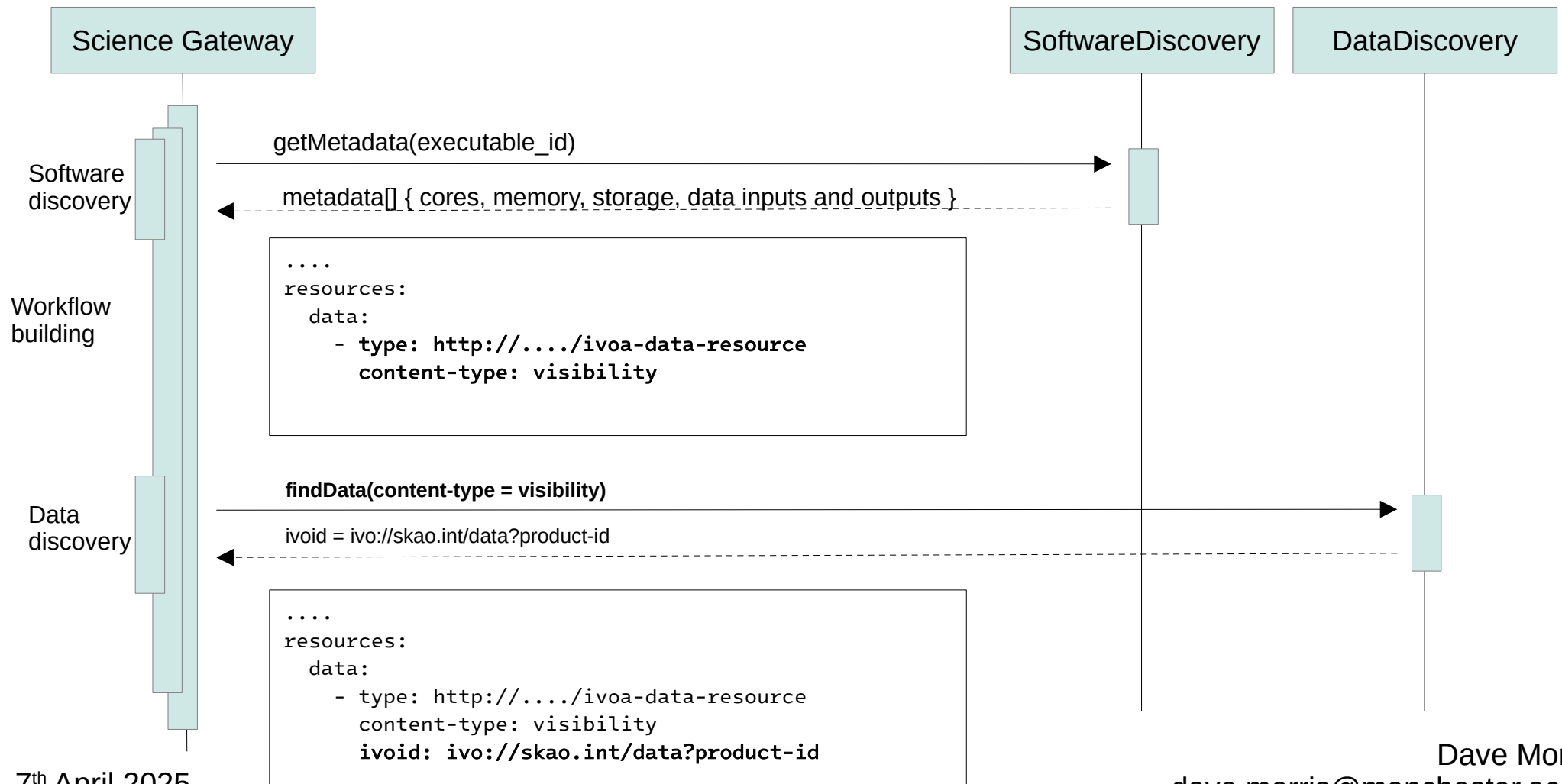
Metadata description includes compute, storage, and **data resources** required by the software  
Enabling software developers to provide describe the data inputs and outputs





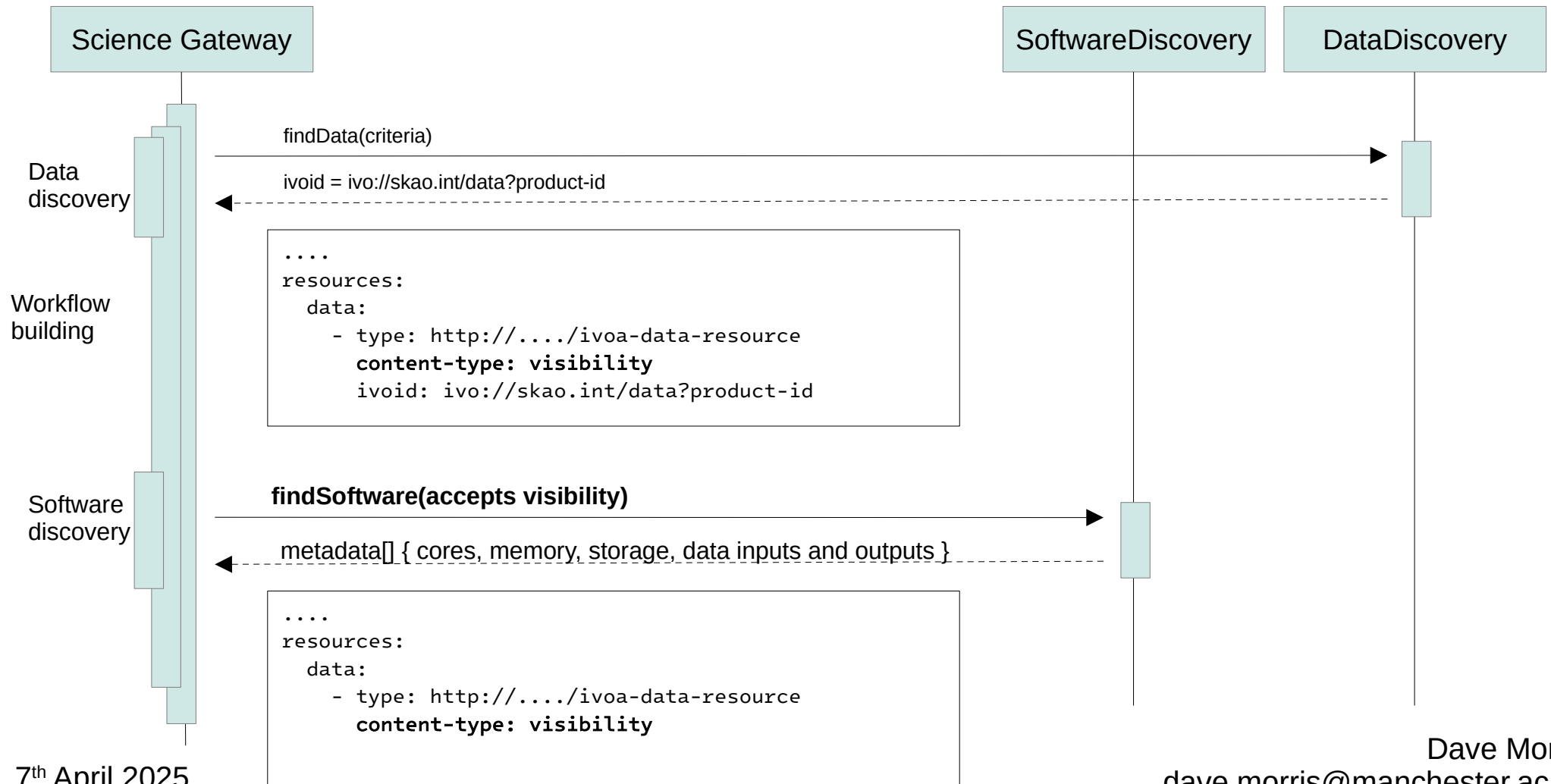
Science Gateway can use the list of data resources to prompt the user to select the relevant data

## Selecting the data to match the software inputs





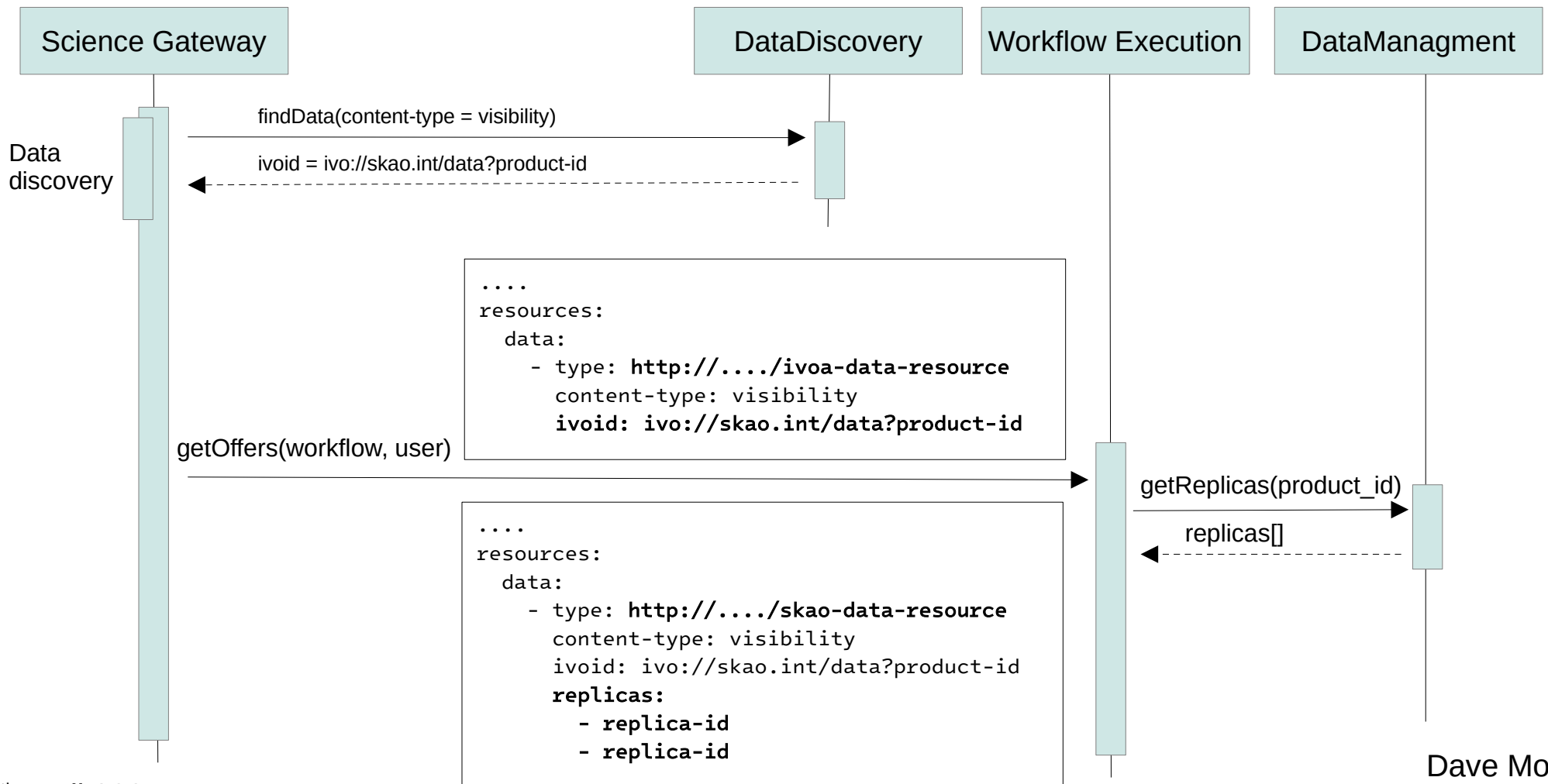
Science Gateway can use the list of data resources to prompt the user to select the relevant data  
**Or selecting the software to match the data**





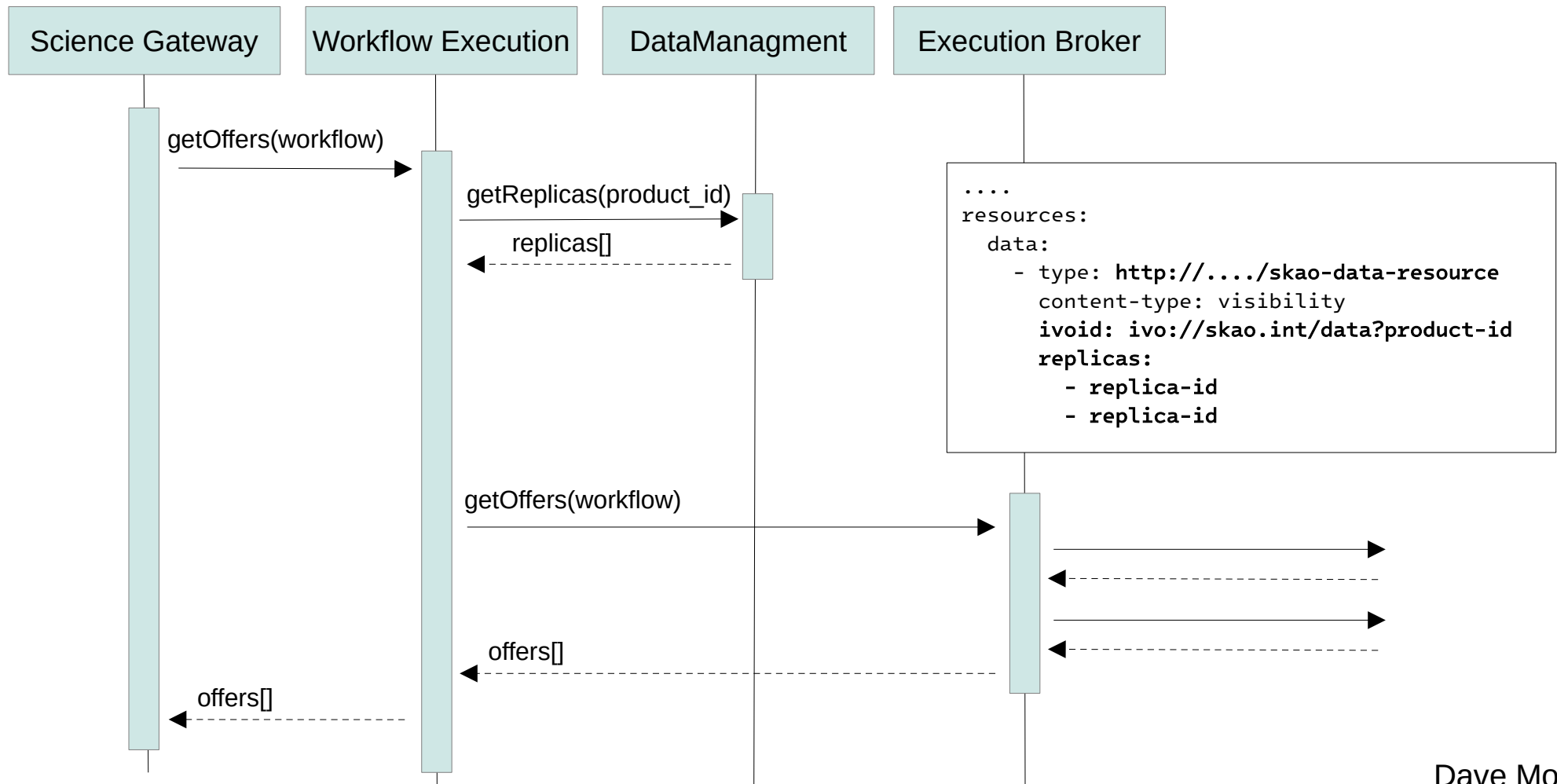


Data discovery returns ivoird references, Workflow Execution expands them to Data Lake replicas  
Changing the resource type from ivoa-data-resource to skao.data-resource





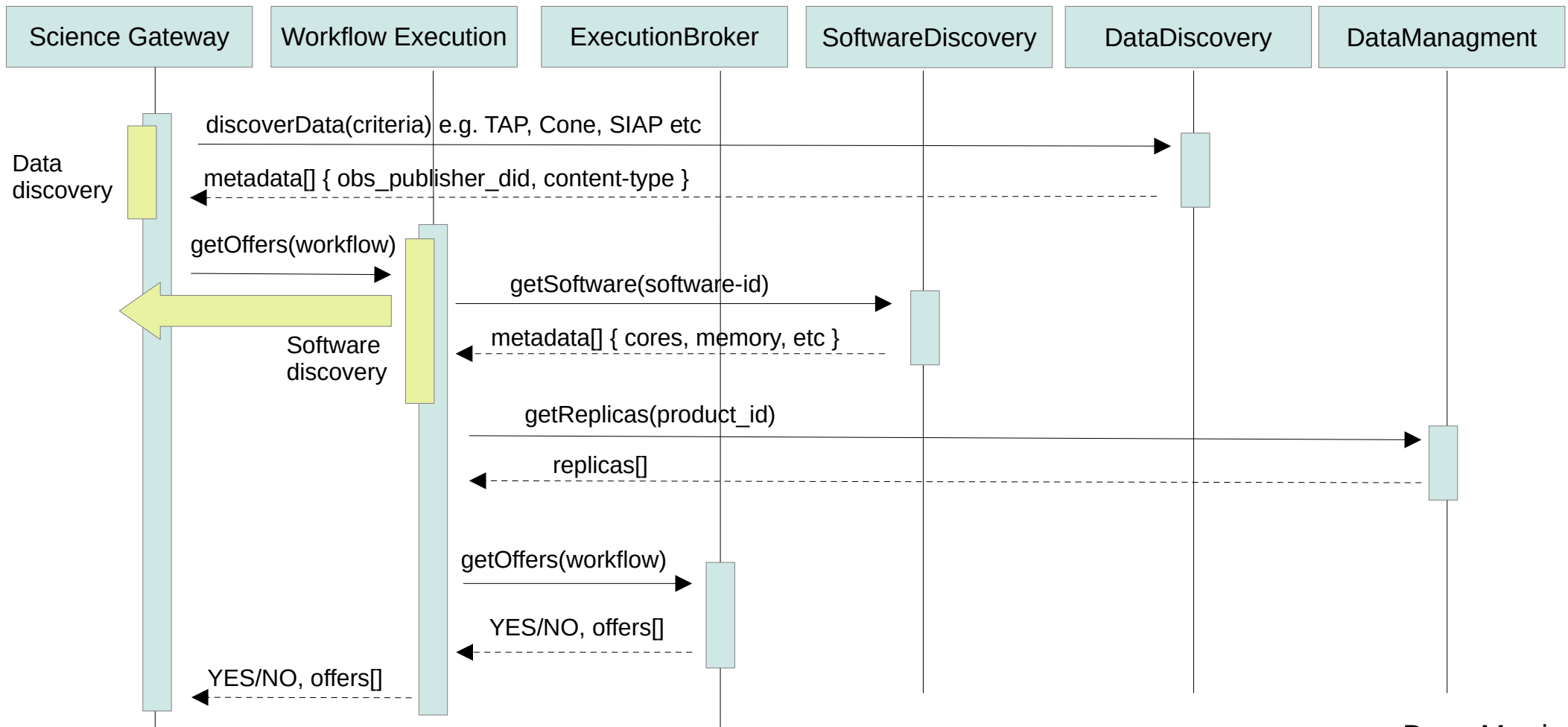
Workflow Execution sends skao-data-resources (with replica lists) to local Execution Brokers  
Local Execution Brokers use the replica lists to estimate transfer times





## Key change is to move software discovery step from WorkflowExecution into Science Portal

From this:





Key change is to move software discovery step from WorkflowExecution into Science Portal

To this:

