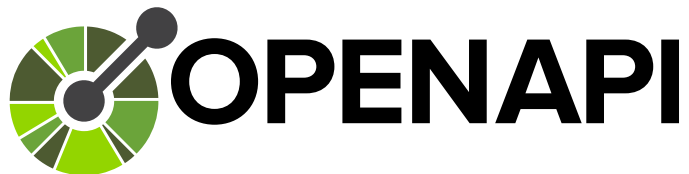
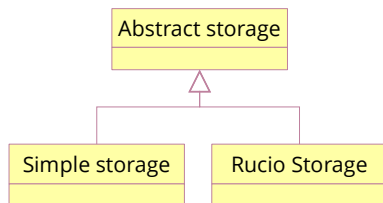




Execution Broker

SRCNet-0.2
Sequence diagram

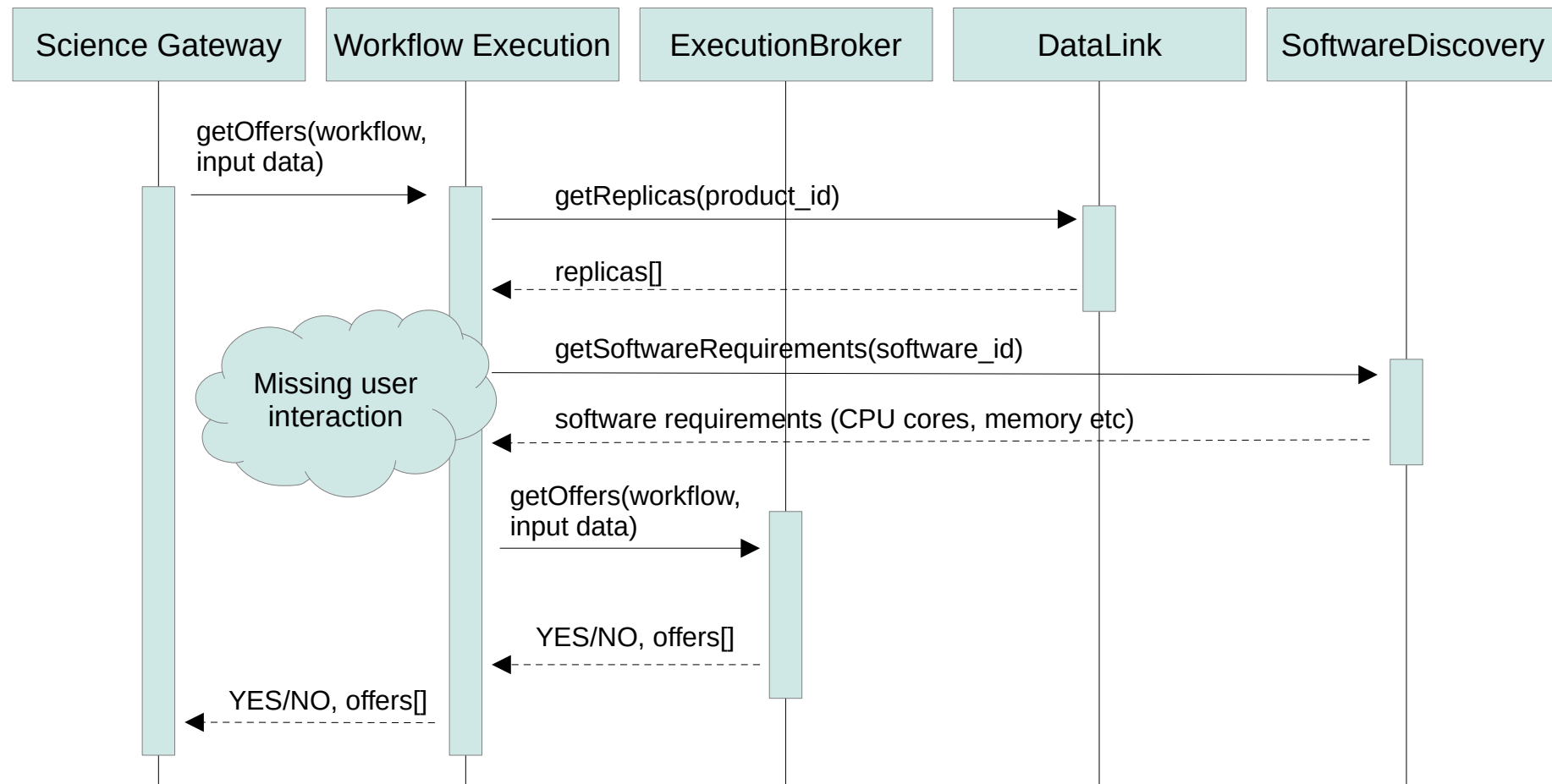
Dave Morris
Manchester
University





Current sequence diagram

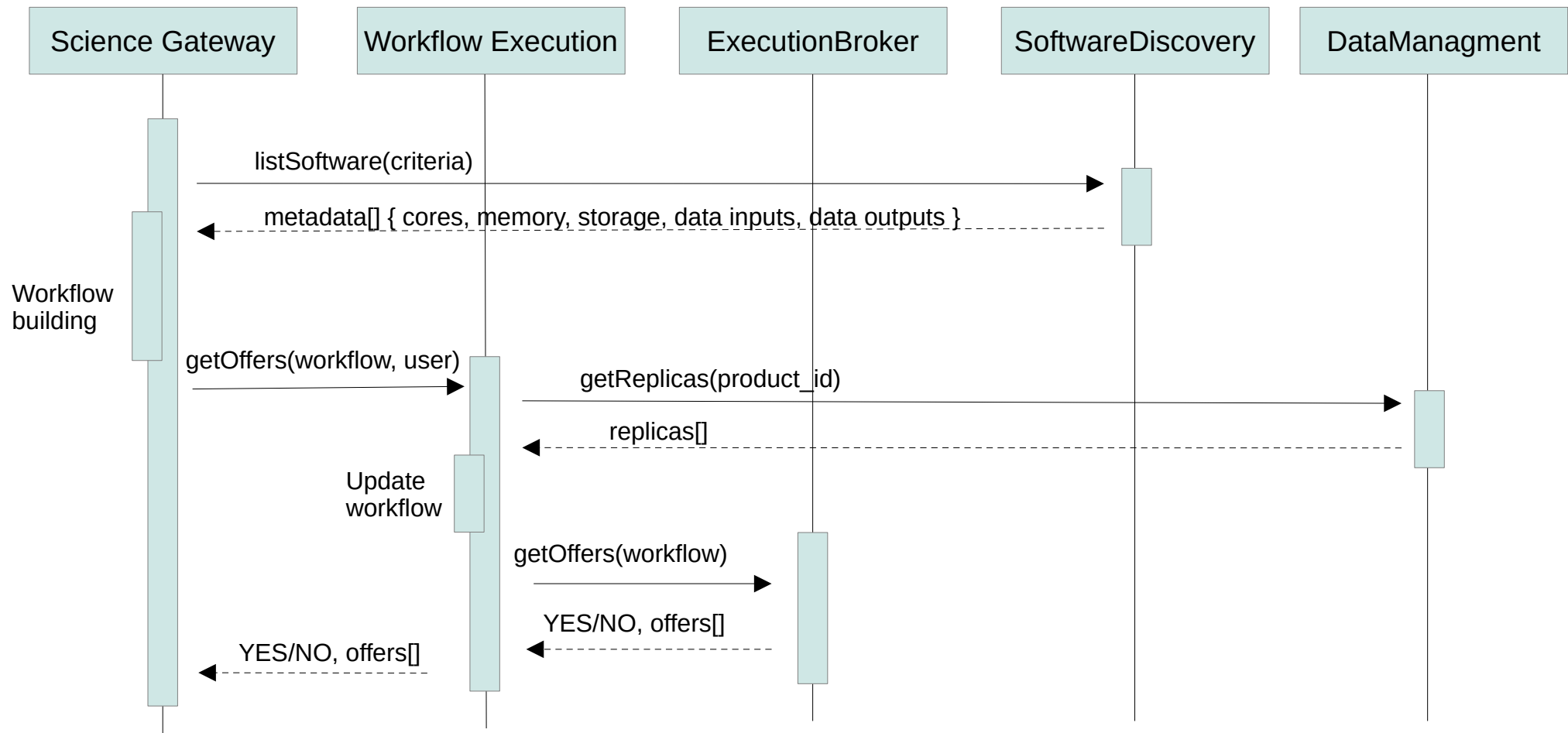
<https://confluence.skatelescope.org/pages/viewpage.action?pageId=311713724>





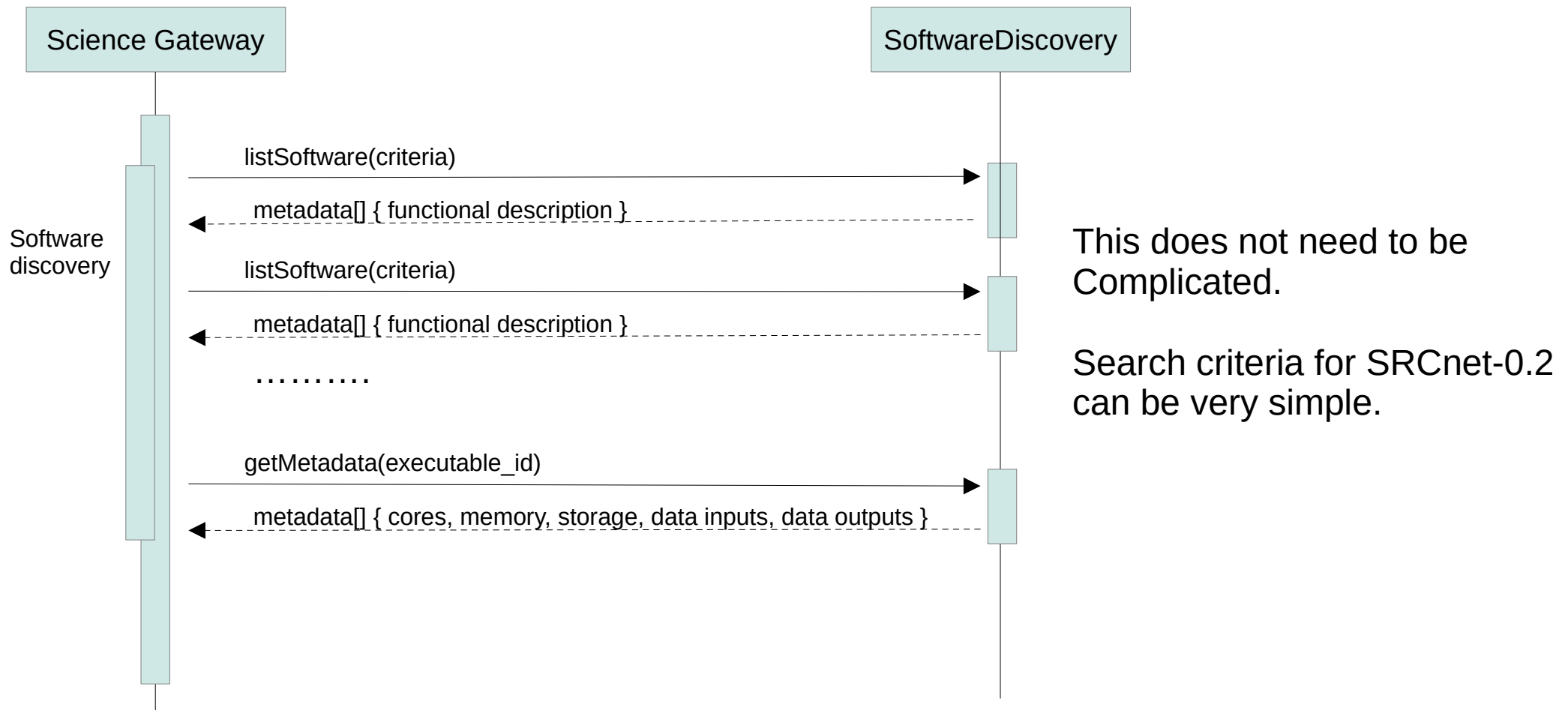
Revised sequence diagram

Adding user interaction to Software Discovery and workflow building



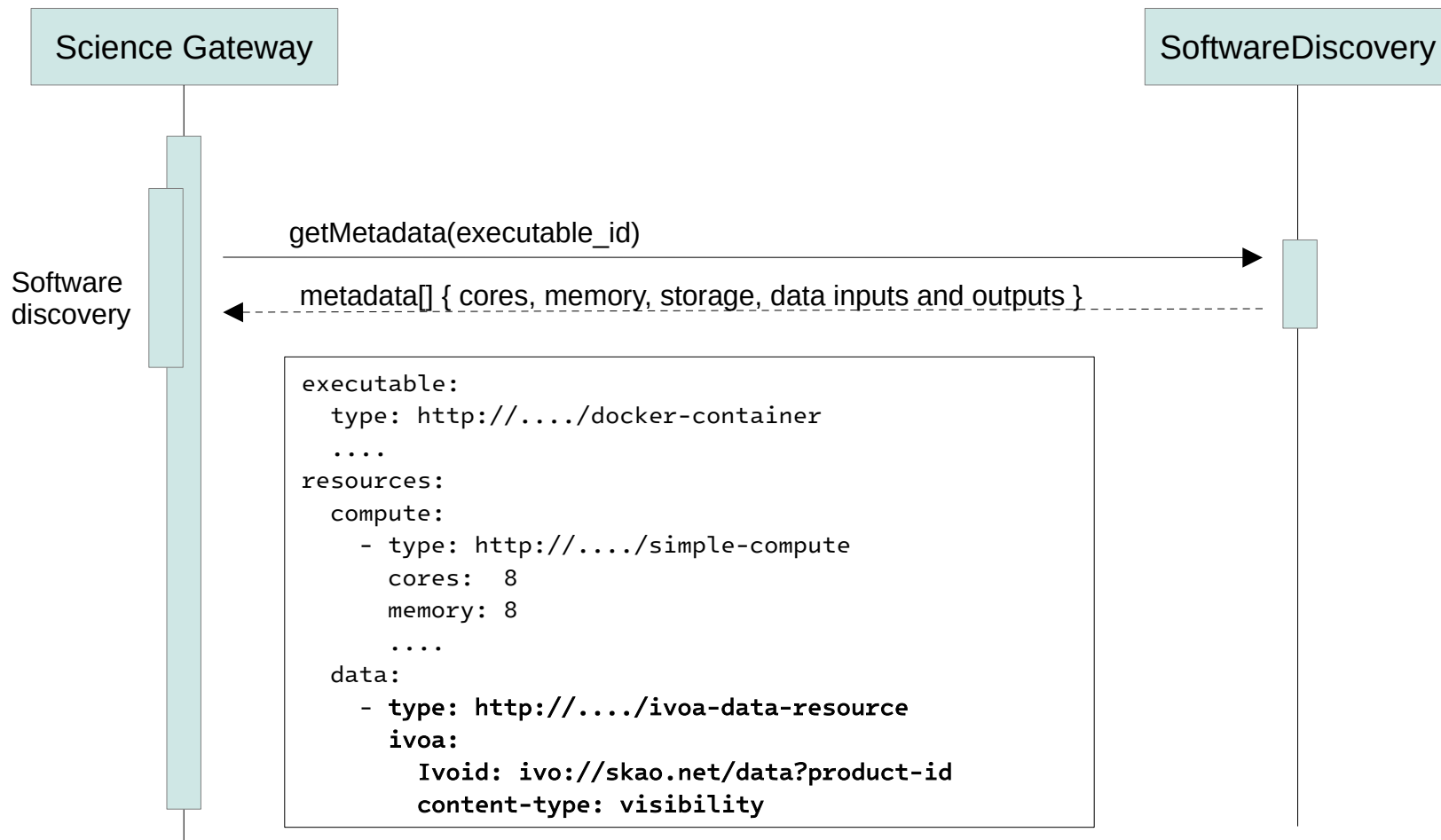


Conversation between Science Gateway and Software Discovery to select the software Adding user interaction into the Software Discovery process



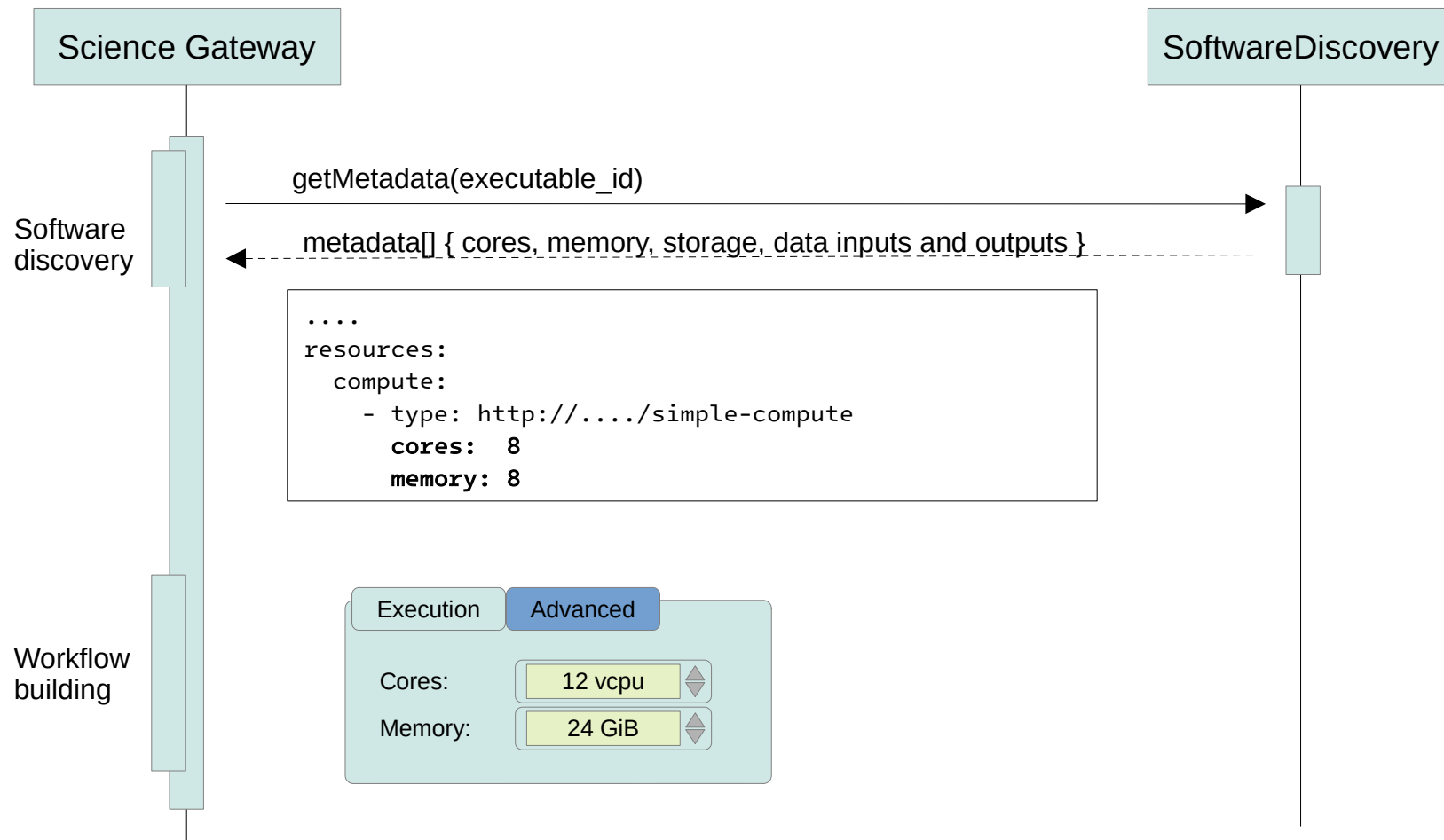


Metadata description includes compute, storage, and **data resources** required by the software
Enabling software developers to provide details of data inputs and outputs



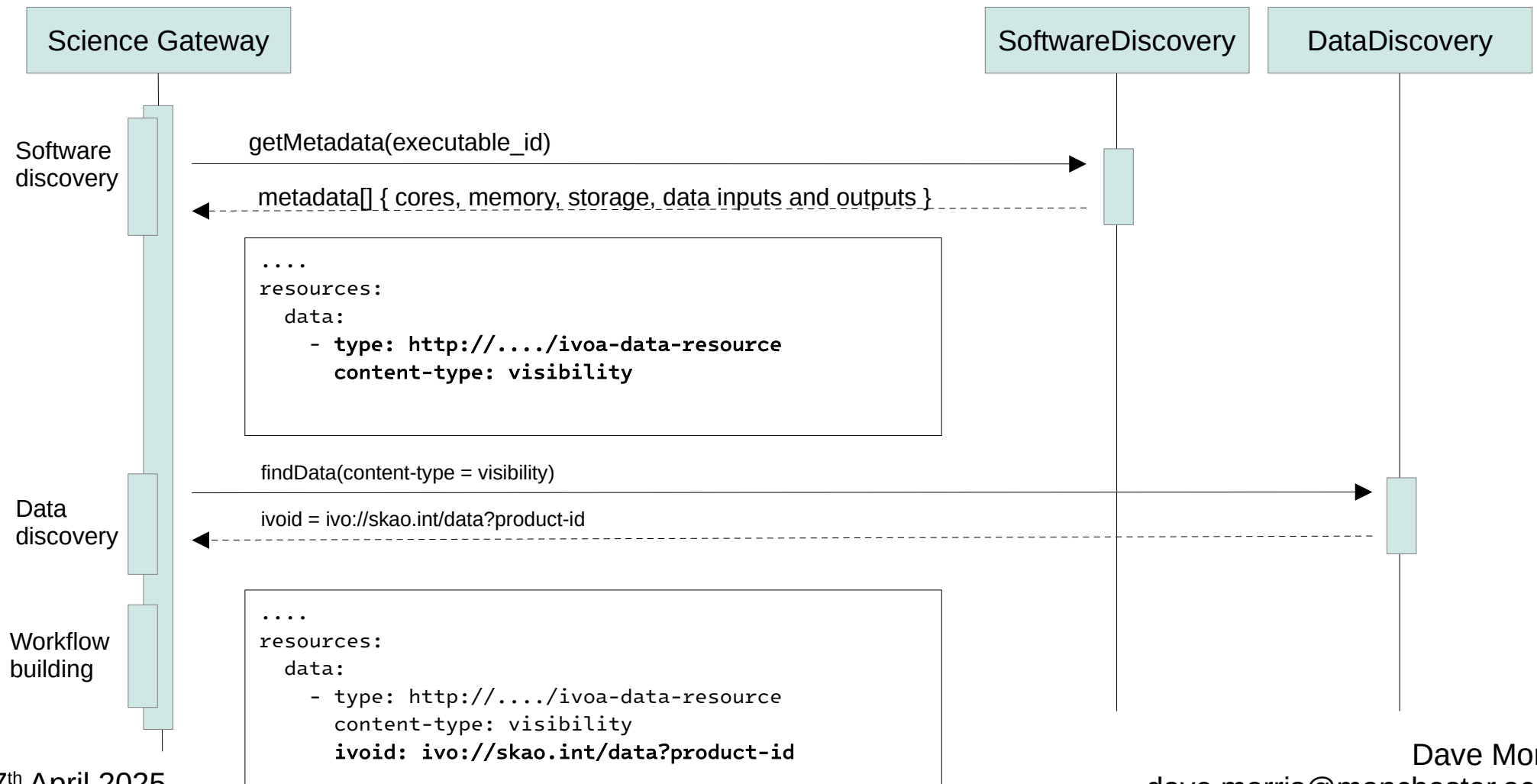


Science Gateway 'advanced' tab allows the user to override the default requirements
Enabling the user to correct bad defaults or experiment outside the box



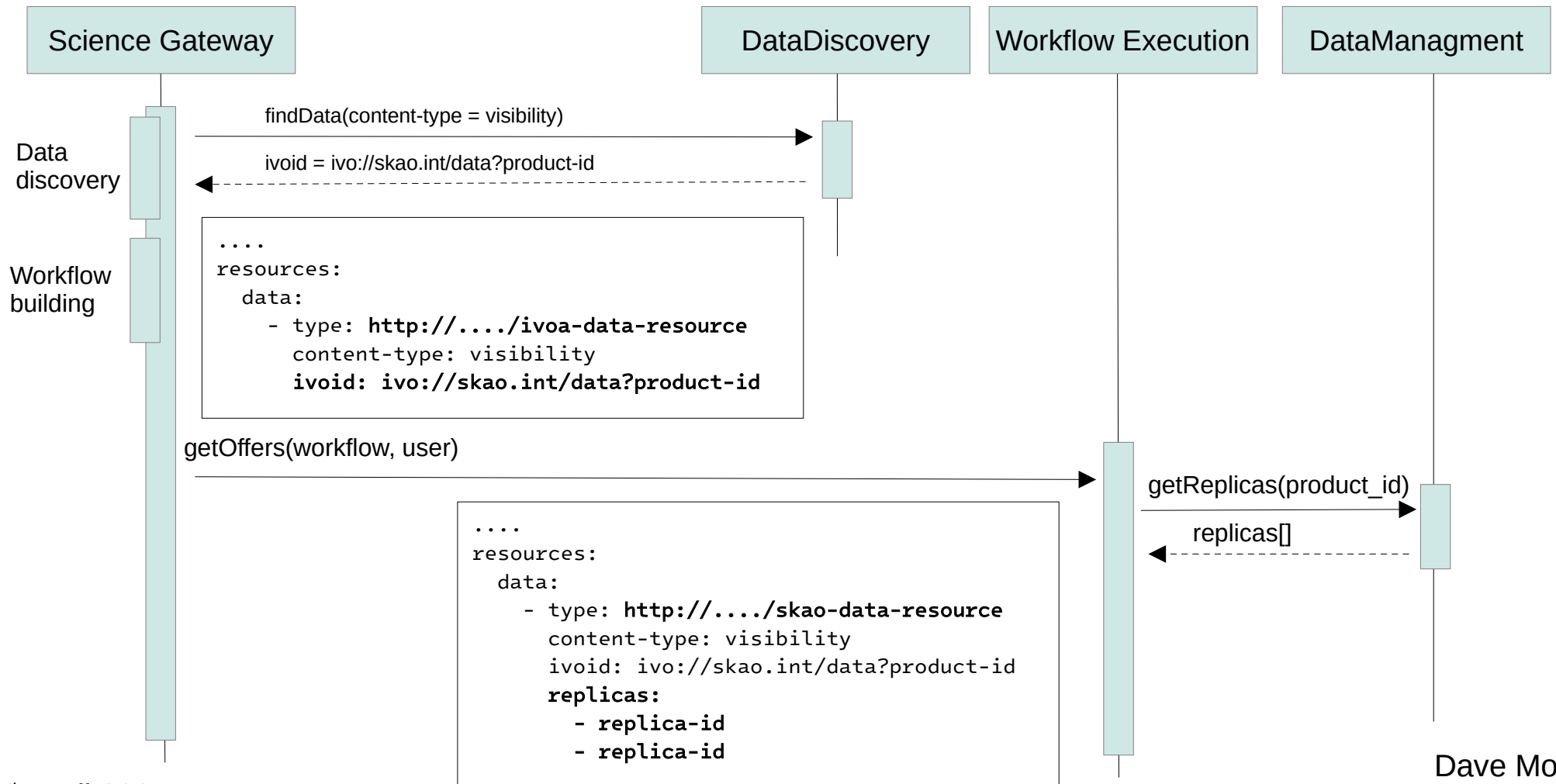


Science Gateway can use the list of data resources to prompt the user to select the relevant data
Selecting the data to match the executable, or the executable to match the data



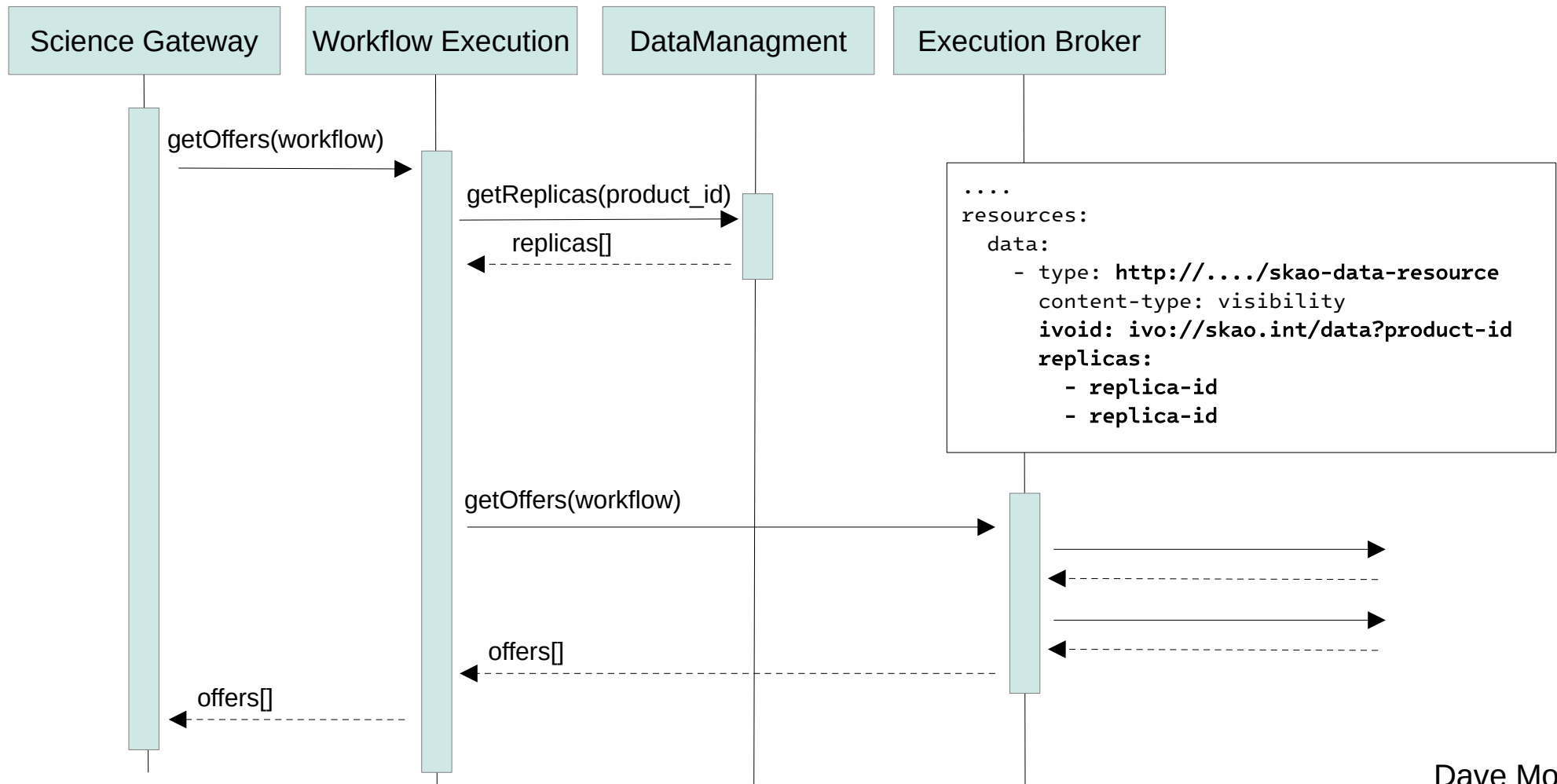


Data discovery returns ivoid references, Workflow Execution expands them to Data Lake replicas
Changing the resource type from ivoa-data-resource to skao.data-resource





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





SRC | Net

SKAO Regional Centre Network



7th April 2025

Dave Morris
dave.morris@manchester.ac.uk