

Using the BPM Toolkit 2022

@sergeluca

Contents

PART 1. Using the Power Platform BPM Toolkit	3
PART 2. Extend the Meta workflow	37
PART 3. Integration with Microsoft Teams	49
PART 4. Batch approval.....	52
PART 5. The Pulse BPM Toolkit Monitoring application	55
PART 6. The BPM Toolkit Archiving Module	56

PART 1. Using the Power Platform BPM Toolkit

The goal of this demo application is to validate the setup by making sure everything works well. After this you will be invited to download and to try the developer's guide to create your own custom applications. This demo application is very basic, but again you will be able to understand the full power of the BPM Toolkit in the developer's guide and in the videos that I will publish.

The demo application is a Power Apps canvas application that allows a user to submit an order. The order will trigger a workflow that you will define. The order can be submitted in DRAFT mode, then no workflow is triggered, and the user can still edit the order from his Dashboard; if the order is submitted in FINAL mode, no edition is possible, a workflow is triggered, but the user can still watch the follow up.

Some BPM Toolkit concepts

An application submits a **Request** based on a **Request Type** (in the demo we named the request type **PPA_ORDER**)

The **Request Type** is associated to a workflow that you must define. Workflow definitions are called **Meta Workflows**. In the demo, the workflow is named **PPA_ORDER_WORKFLOW**.

When a request is submitted, only the person who submits the workflow + the people who can manage this Request Type can see and interact with the data.

Let's say you work in a company, and you want to work part-time. You must submit an HR request based on the Part-time request type.

A specific team within HR can manage your part-time request. Some requests are very confidential.

This means that somewhere you must define a meta-workflow that will handle this Part time request, but you will also have to define a security group containing the people in HR who are specialized in this specific Part-time request.

You also need to specify who will do what in each step of the workflow. This is what we call a Role: you must define roles and who is part of which role. In each step of the workflow.

Ok, let's do that together.

1. Import the solution **BPMToolkitDemo2022_xxx.zip**.

Associate the picture "Create new order" with the PPA_ORDER canvas application in the BPM Toolkit Demo solution.

2. You will now configure the BPM Toolkit for the following scenario:
A user submits an order.

The order must be reviewed by 3 teams of people:

ORDER_SUPPORT_PARIS,
ORDER_SUPPORT_NYC,
ORDER_SUPERVISOR

3. If you edit the PPA_ORDER application, you will notice than when the user submits his order request, the type of request must be provided to the BPM Toolkit: in this case, the type of request is "PPA_ORDER":

```
Set (
    gblOrder,
{
    /* Mandatory for BPM Toolkit */
    CaseID: gblCaseID,
    /* Mandatory for BPM Toolkit */
    Submitter: gblSubmitter,
    /* Mandatory for BPM Toolkit */
    OnBehalfOf: gblOnBehalfOf,
    /* Mandatory for BPM Toolkit, Must be FINAL or */
    CaseSubmissionStatus: "DRAFT",
    /* Mandatory for BPM Toolkit */
    RequestType: "PPA_ORDER",
    /* Mandatory for BPM Toolkit */
    CaseDescr: gblCaseDescr, /* Optional for BPM */
    Actors: "",
    Product: gblProduct,
    Amount: gblAmount,
    Account: gblAccount,
    Contact: gblContact,
    ContactEmail: gblContactEmail
}
```

Nothing else has been configured yet regarding this type of request—Let's see what happens when we submit an order.

4. The BPM Toolkit is designed to deal with highly confidential information, like HR, medical data, or defense sensitive data. Therefore, the information related to the request must be end-to-end secured:

only the user who submits the information (or the person who submits the request on behalf of the user) can see the information.

If the request is submitted for review/approval, only people in the review/approval pipeline can see the information. This is typically the case in HR or DOD (Department of Defense) systems.

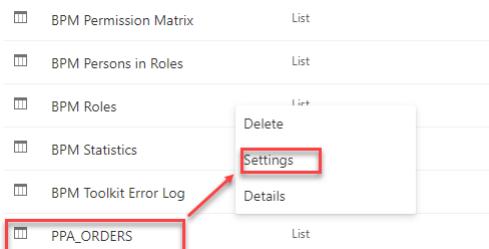
5. Let's define a SharePoint security group for the type PPA_ORDER_GROUP

- Go to the SharePoint list **BPM Case Configuration**. Add a new entry: type PPA_ORDER in the Case Type column. Save the information.
- We will specify the Security group associated with PPA_ORDER in the security group column, but let's define the SharePoint security group.
 - a. Go to the **site settings- site permissions- advanced permissions settings**
 - b. Create a Group named PPA_ORDER_GROUP with **read** permissions.
- Go to the SharePoint list **BPM Case Configuration** and select PPA_ORDER_GROUP in the security group column:

BPM Case Configuration ☆

Title	Case Type	Security Group	Security Group Id
	PPA_ORDER	PPA_ORDER_GROUP	

6. in the same list (BPM Case Configuration), specify the PPA_ORDER list guid in the RequestListGuid column: (you will find the guid of the list by going to the Site Contents-<select the list>-Settings), and the list guid will show-up on the page url:



BPM Case Configuration ☆

Title	Case Type	Security Group	Security Group Id	SecurityLevel	TeamID	TeamChannelID	RequestListGuid
	PPA_ORDER	PPA_ORDER_GROUP		veryhigh			e3c50343-dd76-4e90-a499-25fc22599c78

7. In the same list, define when you want the request and its lifecycle to be archived and purged (removed from archive from compliance reason); specify 3 and 10 (days).

SecurityLevel	TeamID	TeamChannelID	RequestListGuid	ApprovalPattern	ReminderAfter	Workflow	ArchiveAfterDays	PurgeArchiveAt...	Add column
veryhigh			e3c50343-dd76-4e90-a499-25fc22599c78			PPA_ORDER_WORKFLOW	3	10	

8. On your SharePoint home page, click on the new Order picture.

9. Fill in the form:

The screenshot shows a SharePoint form titled "New Order". The form has the following fields:

- Product:** Tesla 2021
- Amount:** 50.000
- Account:** Paul
- Contact:** John
- Contact e-mail:** serge@ppa.com
- On Behalf of:** sergeluca@doctoflow12.onmicrosoft.com
- Submitter:** sergeluca@doctoflow12.onmicrosoft.com

At the bottom, there are two buttons: "Save (Draft)" (green) and "Submit to approval" (red).

- Click on Save (Draft). No workflow has been defined yet for the PPA_ORDER request, so we will just try to save, view, and edit the form. The form calls a flow that will store the right in a dedicated list. Each request type must have its dedicated list (or Entity in the Dataverse version of the BPM Toolkit).

The PPA_ORDER requests are saved in the PPA_ORDERS list and are secured by the BPM Toolkit.

Saving a request (even in draft mode) already creates a Case. If you check the Case list, you will see your request.

- Go to your SharePoint site homepage and click on the picture **Your Dashboard**.

The Dashboard is where users can manage all their requests, approve/review tasks, and delegate their activities to other users for a specific timeframe.

Your request is a draft; filter the draft requests by clicking on the grey circle:

The screenshot shows a SharePoint list titled "My requests: serge luca". At the top, there are status filters: All (grey), Waiting (yellow), Rejected (red), Approved (green), Draft (grey), and Stopped (black). A search bar is present. Below the filters, the list has columns: Status, Submitted on, Request Id, Name of requester, Type, and Action. One item is listed: Status is grey, Submitted on is 22/12/2020 09:40, Request Id is Req-2020-12-22T09:40:33.6694635, Name of requester is sergeluca, Type is empty, and Action has icons for edit and delete.

If you want to edit, view the request, click the icon in the Action column (don't click the delete icon yet): nothing happens. The reason is that when a request is created, the associated View and Edit forms must be specified. You will do it in the next step.

12. To associate these forms with the request PPA_ORDER:

- Copy the PPA_ORDER application URL
- go to the SharePoint list **BPM Forms**
- Create a new entry with CaseType = PPA_ORDER, paste the app URL in ViewForm and EditForm.
- For **ViewForm** append the url with **&action=view&CaseID=**
- For **EditForm** append the url with **&action=edit&CaseID=**

BPM Forms

The screenshot shows a SharePoint list titled "BPM Forms". There are two items listed, both with CaseType set to "PPA_ORDER". The first item's ViewForm URL is highlighted with a red box and contains the full URL: https://app-s.powerapps.-com/play/c65242d5-cec2-48ee-aaf0-850fde-f79d77?tenantId=2798645b-6f00-414c-8a15-e35c7009f7fd?action=view&CaseID=. The second item's EditForm URL is also highlighted with a red box and contains the full URL: https://app-s.powerapps.-com/play/c65242d5-cec2-48ee-aaf0-850fde-f79d77?tenantId=2798645b-6f00-414c-8a15-e35c7009f7fd?action=edit&CaseID=.

13. Go back to MyDashboard app, refresh the app in the browser (F5) and view and edit your request and save it. Check if the modifications have been saved.

Don't submit the request for approval yet; we still must define the workflow logic for the review/approval.

14. Define request Categories

If you take a look at the MyDashboard, the Type column of your draft request is empty:

Status	Submitted on	Request Id	Name of requester	Type	Action
	22/12/2020 09:40	Req-2020-12-22T09:40:33.6694635	sergeluca		

15. This is the request category. Let's define the request category in the BPM Case Categories: add the following entries:

BPM Case Categories

Title	Workflow	Case Category	Case Type Int...	Case Type Frie...	+
		PPA_ORDER	PPA_ORDER	PPA_ORDER	.

16. The existing request won't get the category name, but if you create a new draft request you will see the category:

Status	Submitted on	Request Id	Name of requester	Type	Action
	22/12/2020 10:52	Req-2020-12-22T10:52:14.3105561	sergeluca	PPA_ORDER	
	22/12/2020 09:40	Req-2020-12-22T09:40:33.6694635	sergeluca		

17. Let's define the workflow.

The logic is our PPA_ORDERS must be reviewed by 3 teams that we will define and name:

ORDER_SUPP_PARIS

ORDER_SUPP_NYC

ORDER_SUPERVISORS

Go to the **Meta workflows** list and define 3 entries (1 for each step of the workflow):

BPM Meta Workflows

Title	Step	Actor	Type of actor	CaseType	ActionExpected
	0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

18. As you noticed, we named the workflow “PPA_ORDER_WORKFLOW”, so we have to specify that in the Request definition; go back to the list **BPM Case Configuration** : type PPA_ORDER_WORKFLOW in the workflow column:

BPM Case Configuration ☆									Workflow
Case Type	Security Group	Security Group Id	SecurityL...	TeamID	TeamCha...	RequestListGuid	ApprovalPattern	Reminde...	
PPA_ORDER	PPA_ORDER_GROUP		veryhigh			e3c50343-dd76-4e90-e499-25fc22599c78			PPA_ORDER_WORKFLOW

We need to define what exactly the actors are.

19. Define the actors in the BPM Roles list.

BPM Roles

Title	Role
↓	ORDER_SUPP_PARIS
↓	ORDER_SUPP_NYC
↓	ORDER_SUPERVISORS

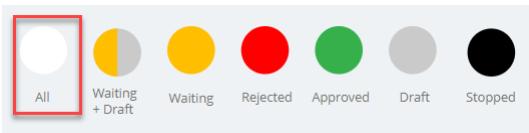
20. Define who is part of which role in the BPM Persons in roles list:
Add your e-mail for each role.

BPM Persons in Roles

Title	PersonEmail	Active	Role
↓	sergeluca@doctorflow12.onmicrosoft.com	↓	ORDER_SUPERVISORS
↓	sergeluca@doctorflow12.onmicrosoft.com	↓	ORDER_SUPP_NYC
↓	sergeluca@doctorflow12.onmicrosoft.com	↓	ORDER_SUPP_PARIS

21. Go to the MyDashboard app, edit your request, and submit it for approval. Don't provide any extra approvers.

22. If you go back to MyDashboard, you will see that the request is not in the draft mode anymore; it is in the “All” category.



It can take a minute to generate and to secure the workflow steps. Click the refresh button until you see that the request becomes orange. At some point (in the waiting category), you will see that the system generates the steps very slowly. If you use a production environment (instead of a trial) with real premium licenses (not premium trial licenses), then everything is faster.

After 1 minute or more, you should see this:

A screenshot of a web application titled "My requests: serge Luca". The header includes a blue bar with a grid icon, a refresh icon, and the title. Below the header is a toolbar with colored circles and labels: All (white), Waiting + Draft (grey), Waiting (orange), Rejected (red), Approved (green), Draft (light grey), and Stopped (black). A table below the toolbar shows a single row of data:

Status	Submitted on	Request Id	Name of requester	Type	Action
Waiting	18/03/2022	Req-2022-03-18 T 14:33:35.8240338	sergeLuca	PPA_ORDER	

At the bottom, there is a process flow diagram with three boxes: "SUPP_PARIS" (orange), "SUPP_BYC" (grey), and "SUPP_SPERRISORS" (grey), connected by arrows. A tooltip above the boxes says "Order for sergeLuca".

23. The rectangle will initially be grey, but after some time the first one will become orange to indicate that the system expects a human reaction at this level. It can take several minutes before it becomes orange.

This is what you see as a user who submits a request.

Now you will see what people managing the business process (like an HR team) can see and can do. The business process managers use the Workflow Command Center. This application must be shared with them. And they can use the application if they are in one of the roles. Indeed, if you click the Workflow Command Center icon, you will get the following error message because your email is not associated with one of the roles:

Not authorized



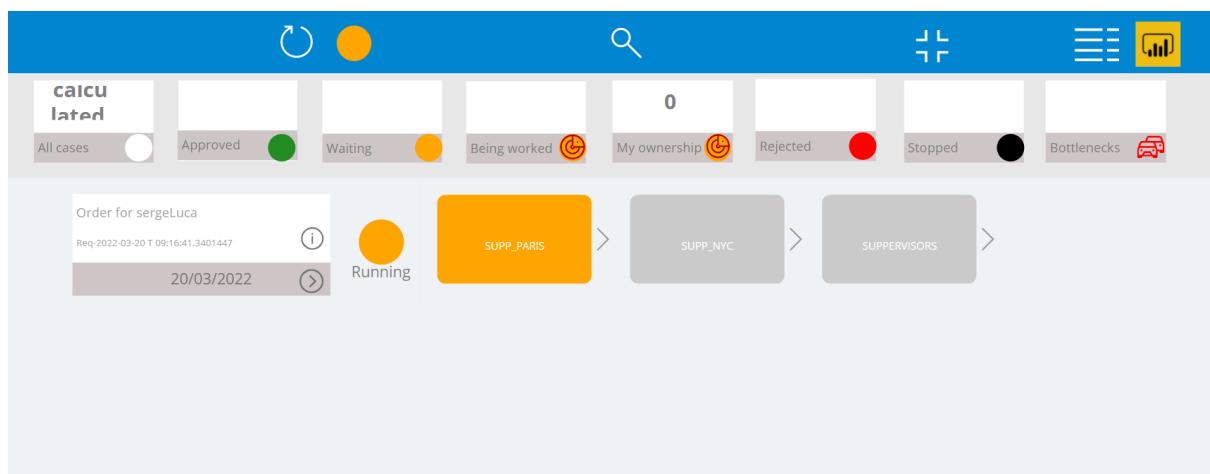
You are not authorized to use this application...

24. To fix this, go the list BPM Persons in Roles, and add yourself in the 3 roles:

BPM Persons in Roles ☆

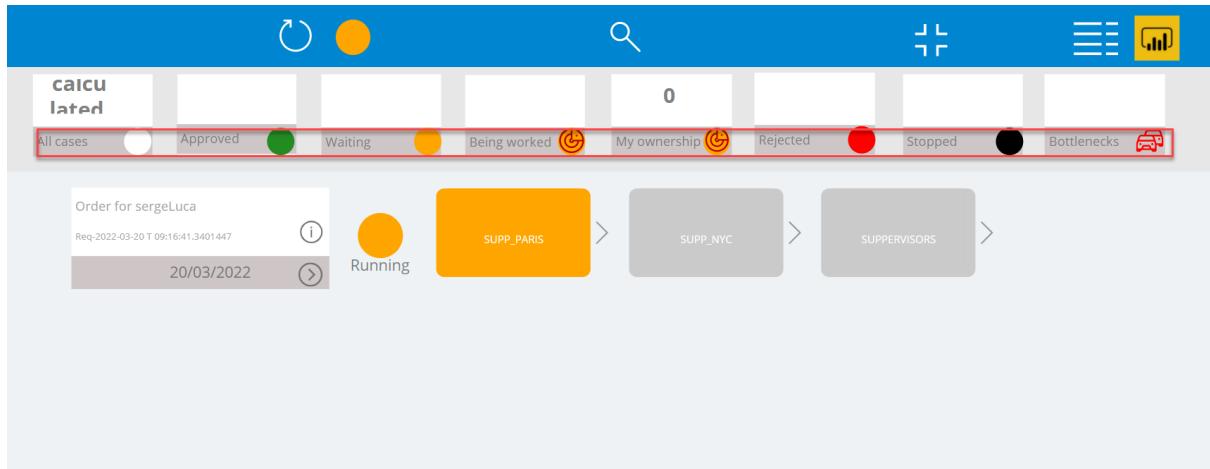
Title	PersonEmail	Active	Role
sergeluca	sergeluca@doctorflow0 3.onmicrosoft.com		ORDER_SUPERVISORS
sergeluca	sergeluca@doctorflow0 3.onmicrosoft.com		ORDER_SUPP_NYC
sergeluca	sergeluca@doctorflow0 3.onmicrosoft.com		ORDER_SUPP_PARIS

25. If you run the Workflow Center again, you should see something like this:



You see the workflow, because your account has been added into the security group associated with this order and you can use the Workflow Command Center console because you are in one of the roles. Later, we will add individual approvers/reviewers.

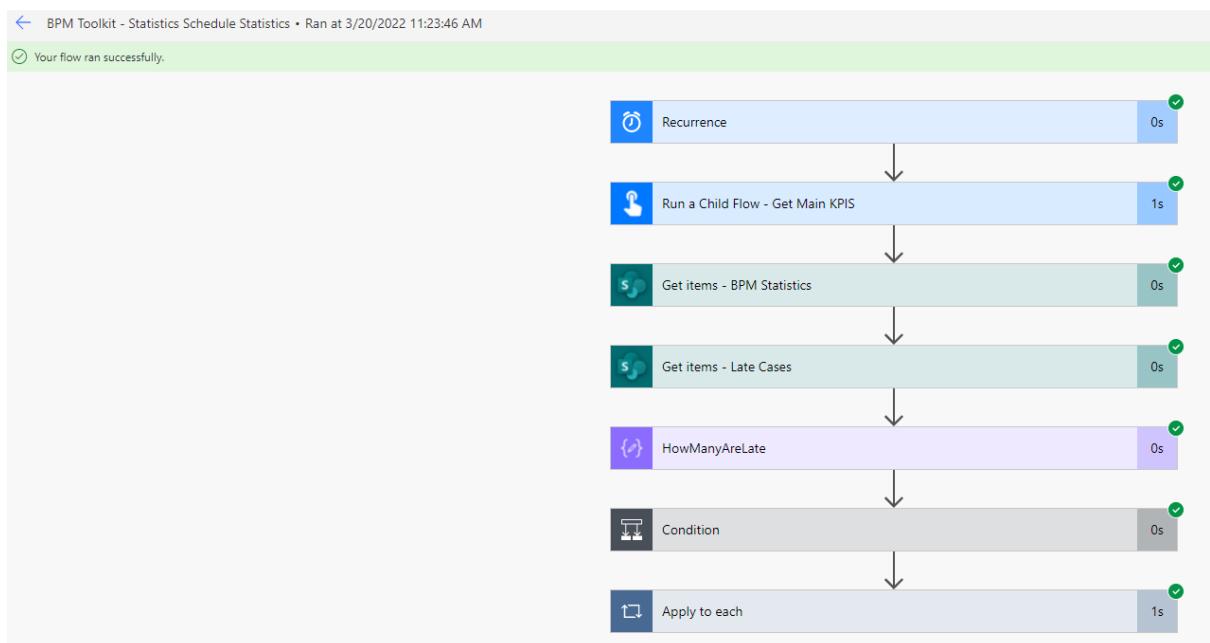
The filters are in the header panel of the workflow center:



By default, the system filters the workflows in waiting state; but you can filter on the workflow that did complete (approved), or rejected, or stopped, and so on.

Also, the very first time you install the BPM Toolkit, you will see the word “calculated”; this is an issue in the display that we will fix; it is actually “not calculated yet”. The scheduled flow” BPM Toolkit – Statistics Schedule Statistics” calculates the kpis every 3 hours.

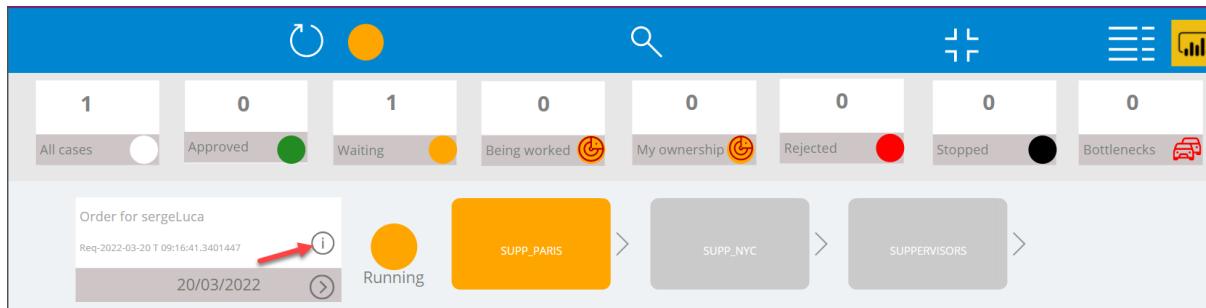
26. Run the flow BPM Toolkit – Statistics Schedule Statistics:



27. You will see the kpis:



28. Clicking the i circle:



Display the request details:

New Order

Power Platform Associates

Product: Surface Laptop 2

Amount: 1200

Account: serge

Contact: serge luca

Contact e-mail: sergeluca@shareql.com

On Behalf of: sergeLuca@doctorflow03.onmicrosoft

Submitter: sergeLuca@doctorflow03.onmicrosoft.com

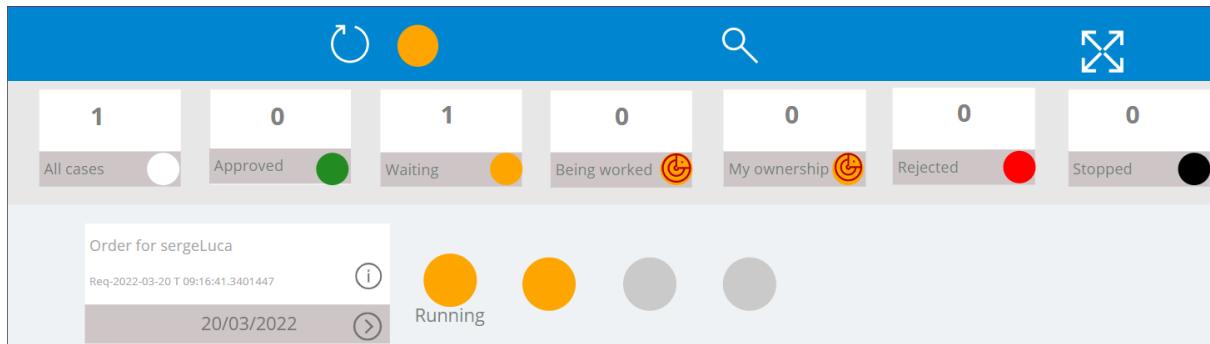
29. A search is also available if you click the search button:

The screenshot shows a software interface with a blue header bar. In the top right corner of the header, there is a magnifying glass icon with a red border, which is highlighted with a red box. Below the header is a row of eight status boxes, each containing a number (1, 0, 1, 0, 0, 0, 0, 0) and a small circular icon. The second icon from the left is green. Below these are several status cards, one of which is "SUPP_PARIS" with a yellow background and orange circle, indicating it is the current step in a workflow. A "Search" dialog box is overlaid on the interface. It has a blue header with the word "Search" and a close "X" button. Inside the dialog, there are seven input fields with dropdown arrows: "Staff name:", "Site location:", "Type of requests:", "Submitted from:", "Submitted to:", "Status:", and "Request id:". At the bottom of the dialog are two buttons: a blue "Apply filter" button and a white "Clear filter" button.

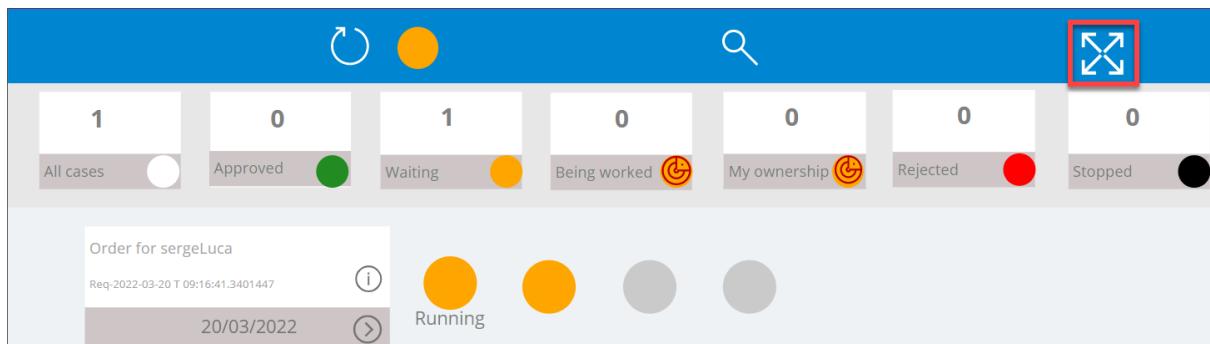
30. If the workflows are very big (many steps), it might be interesting to have a different view; click here:

This screenshot is identical to the previous one, except for the highlighted icon in the header. The "grid" icon in the top right corner of the header is now highlighted with a red box. All other elements, including the status boxes, workflow card, and search dialog, remain the same.

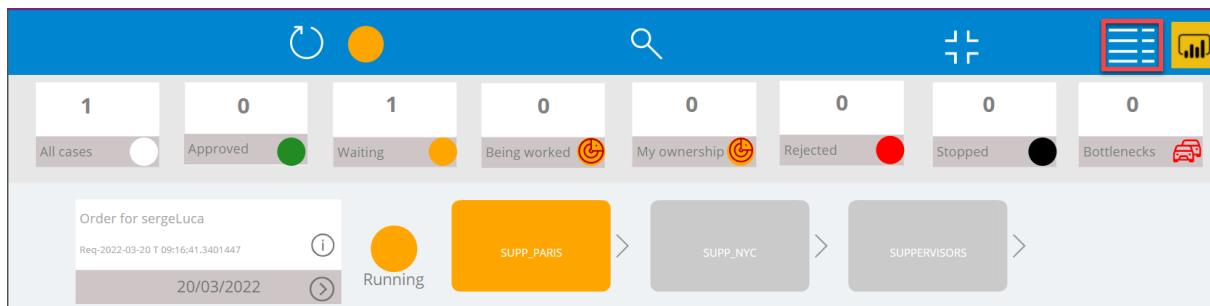
...and you will get this:



31. To switch back to the previous view, click here:



32. There is another view that allows some privileged people to Approve several requests in batch mode, when you click here:



You get this:

Select your role: All

Waiting requests

Request Id	Type	Requester	Current status	Workflow
Req-2022-03-20 T 09:16:41.3401447	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	Running	SUPP_PARIS > SUPP_NYC > SUPERVISORS

If your account is in a role where **CanApproveInBatchRequest** = YES in the list **BPM Roles**:

BPM Roles

Title	Role	Description	CanApproveInBatch
System Supervisor	System Supervisor		YES
ORDER_SUPP_PARIS	ORDER_SUPP_PARIS		
ORDER_SUPP_NYC	ORDER_SUPP_NYC		
ORDER_SUPERVISORS	ORDER_SUPERVISORS		

Then you will be able to do so. More details on this later.

33. Let's get back to the "large view" and click the following arrow:

All cases: 1

Approved: 0

Waiting: 1

Being worked: 0

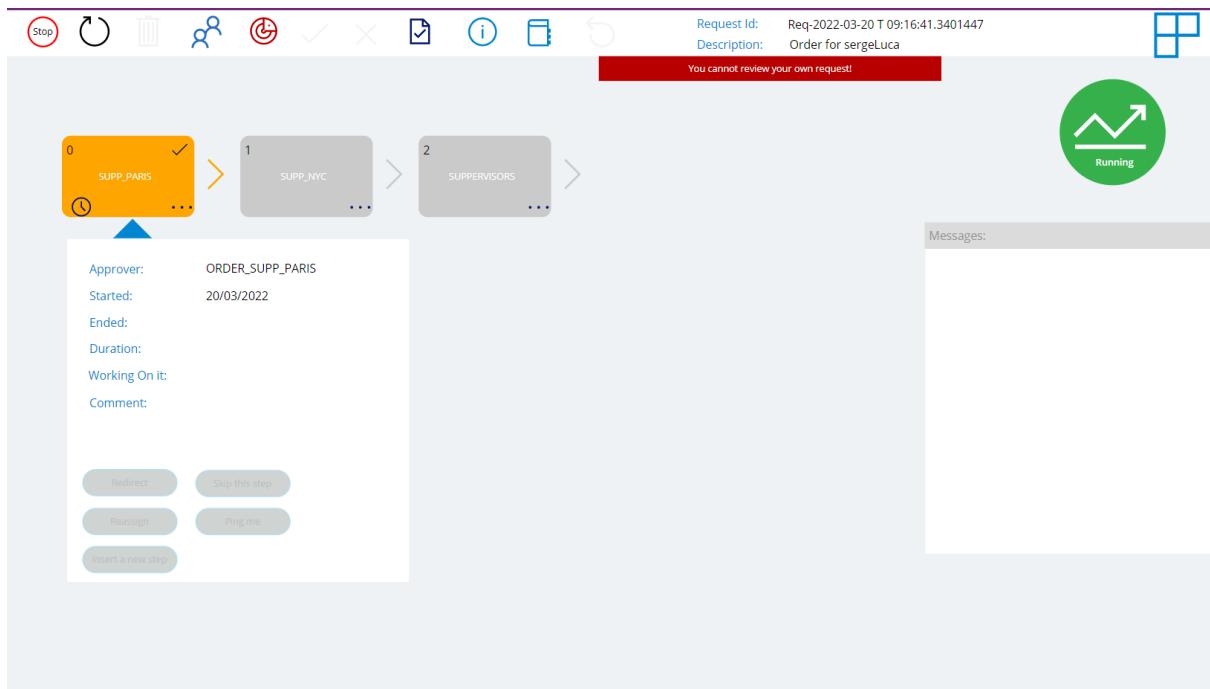
My ownership: 0

Rejected: 0

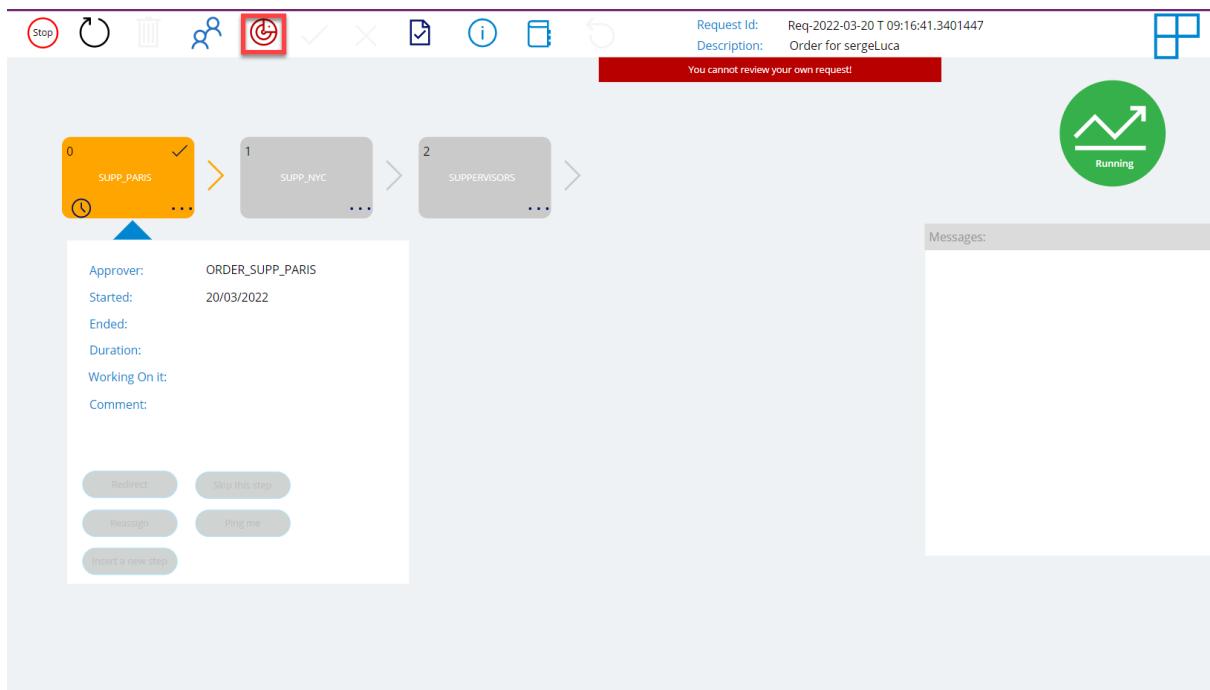
Stopped: 0

Order for sergeLuca
Req-2022-03-20 T 09:16:41.3401447
20/03/2022 [red box] Running

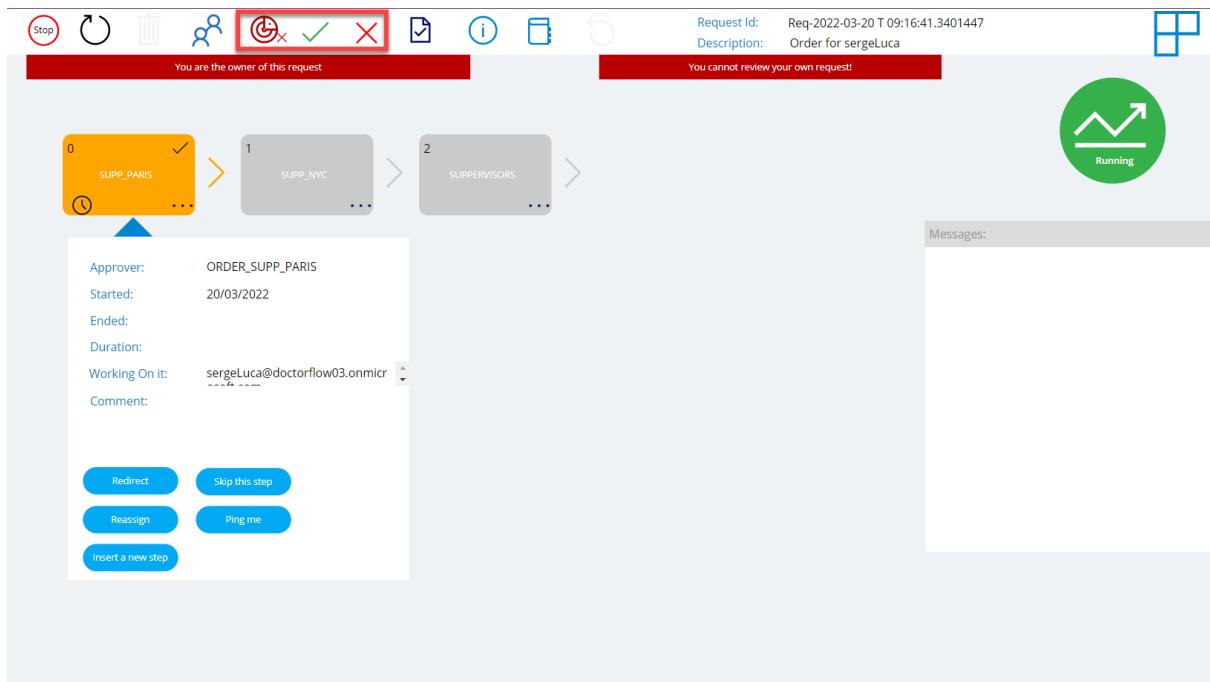
This is a way to treat the request (approve/review,...).



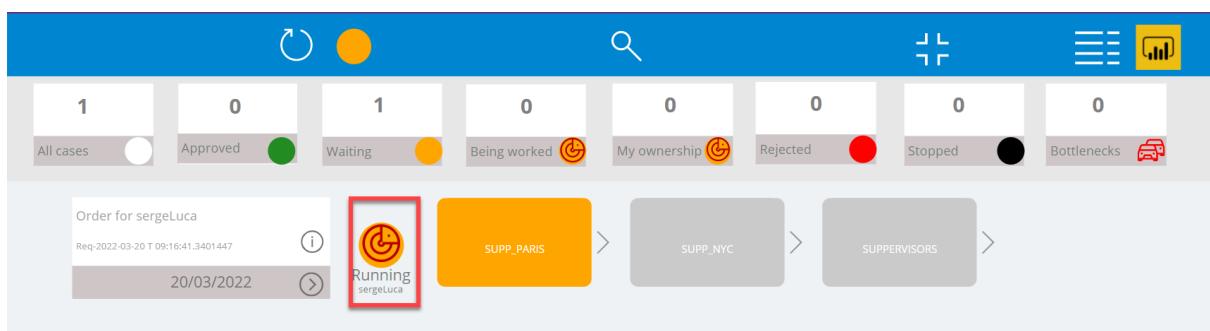
As you can see the workflow is waiting for a member of the role “ORDER_SUPP_PARIS” to react. If you are a member of this role, you should be able to work on it. Click the “radar” icon to take ownership of the case.



The new tools will show-up in this panel:



The icon highlighted in the picture above means that you can release the ownership of the case, or you can approve (with comment) or reject with comment. You are currently the owner of the case, so your colleagues will see your name associated with the orange and radar icon:

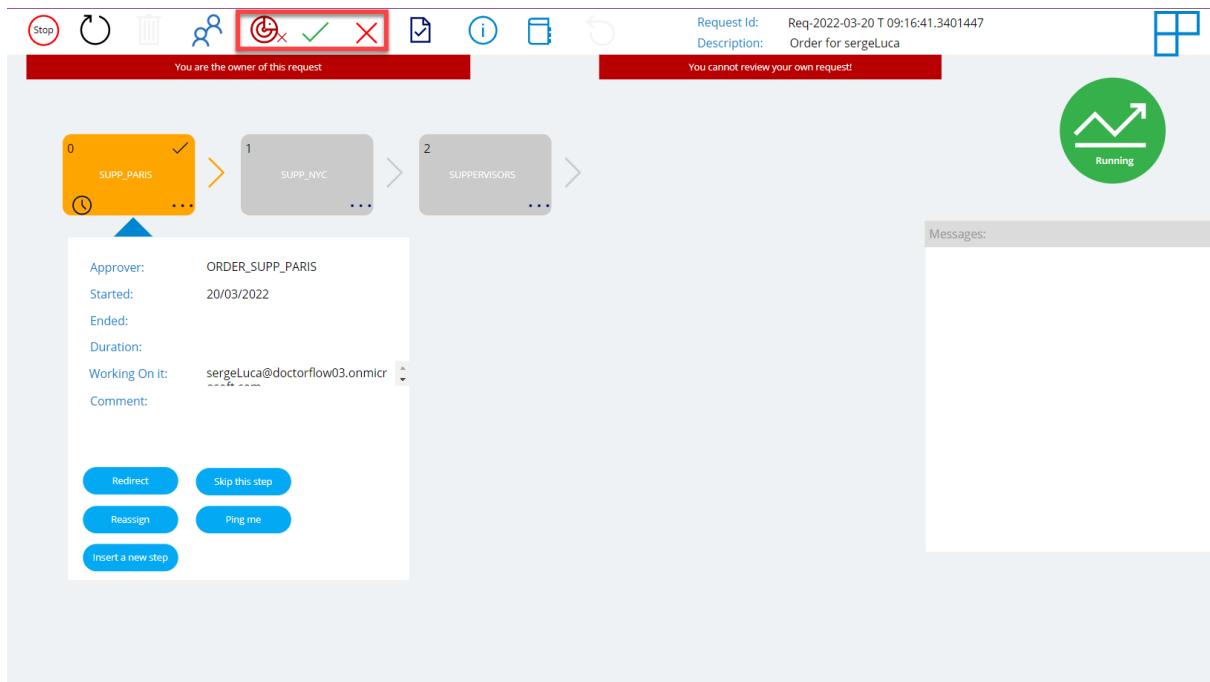


You will see “your task”:



And you can filter the dashboard to see only the cases you are working on (“my ownership”) or all the cases that are currently being worked on (“Being worked”).

34. Let's get back to the workflow panel:



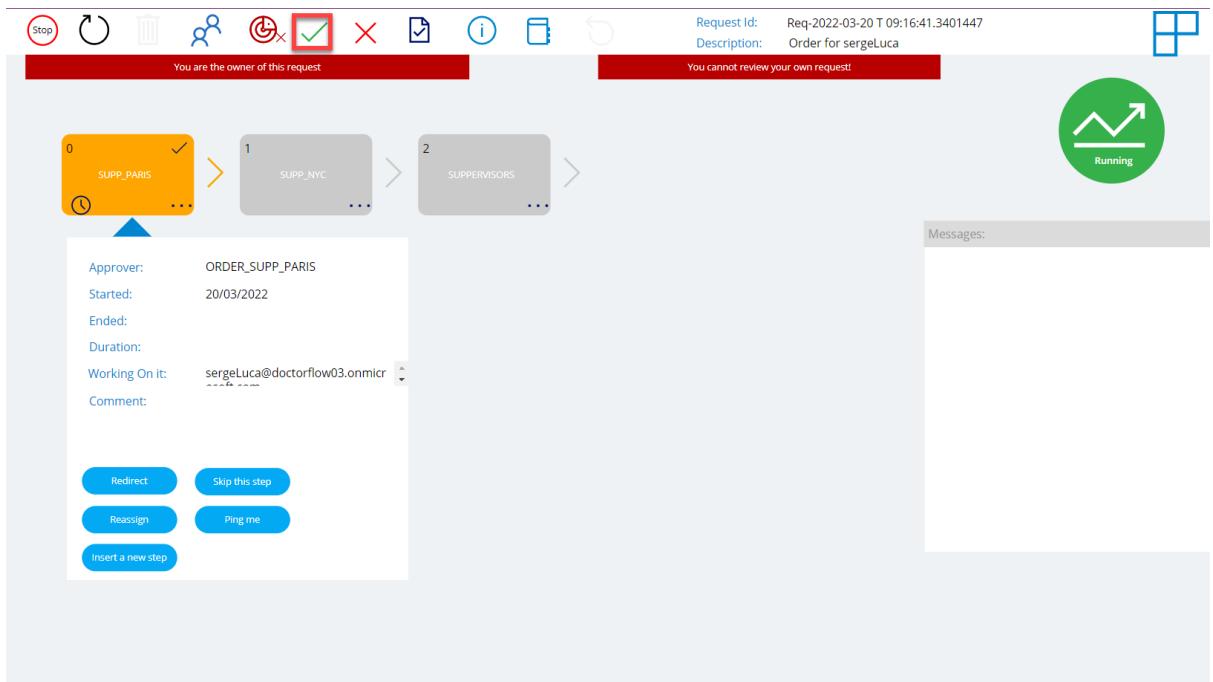
The system knows that it must display the Accept and Reject buttons because in the metaworkflow this step is associated with “Feedback”:

BPM Meta Workflows ☆

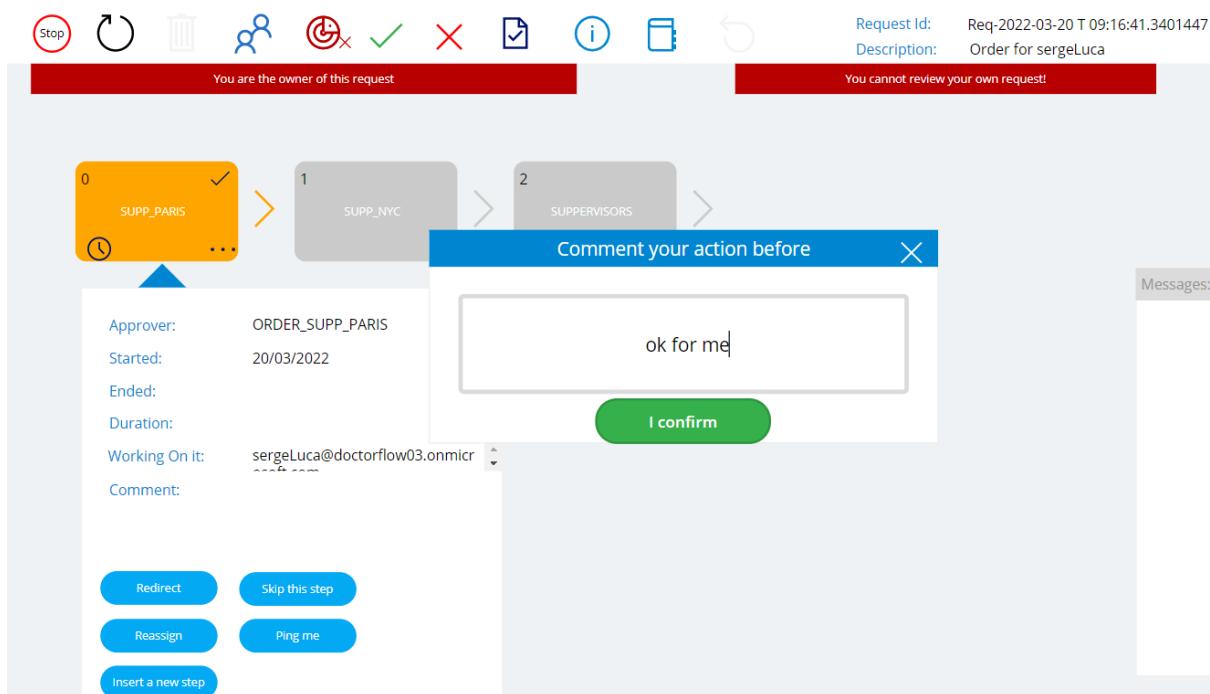
Title	Step	Actor	Type of actor	CaseType	ActionExpected
1	0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
2	1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
3	2	ORDER_SUPPERVISORS		PPA_ORDER_WORKFLOW	Feedback

But there are many other verbs that we will explore; like **Stop** (the workflow will stop), **Approval** (the workflow is Approved, but the workflow does not complete and still go through the next steps), **ApproveStop** (if someone approves the workflow stops and the final status of the workflow is Approved, the next steps are skipped).

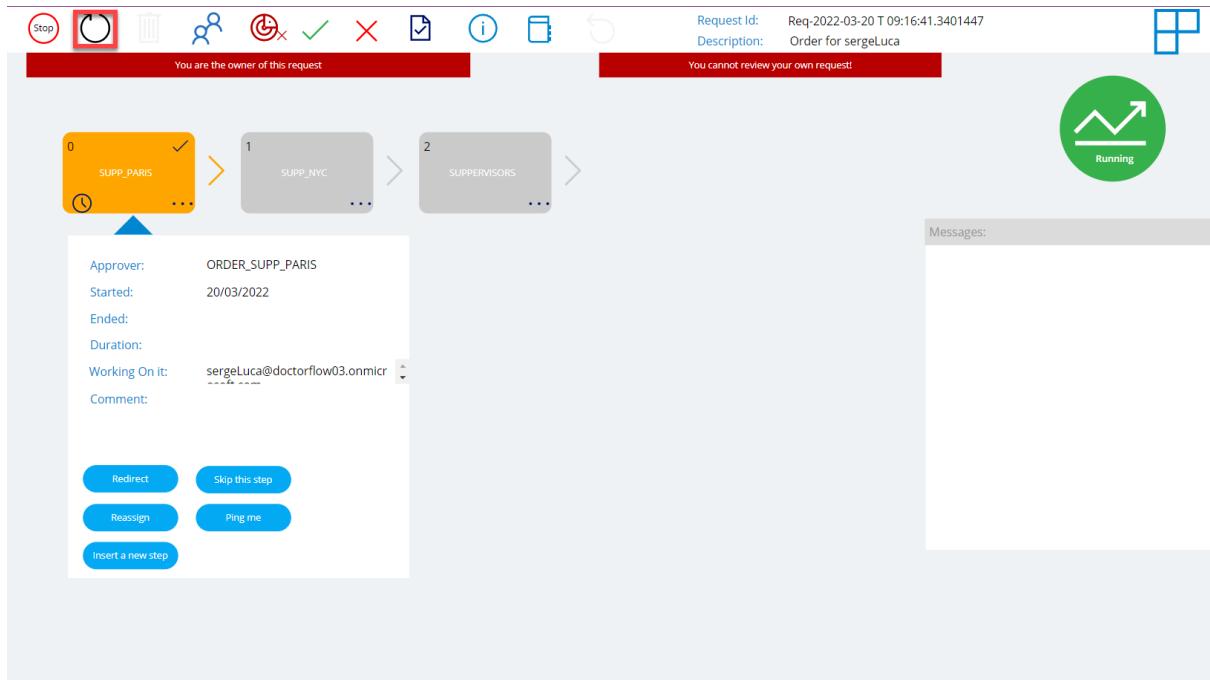
35. Let's click the Accept button



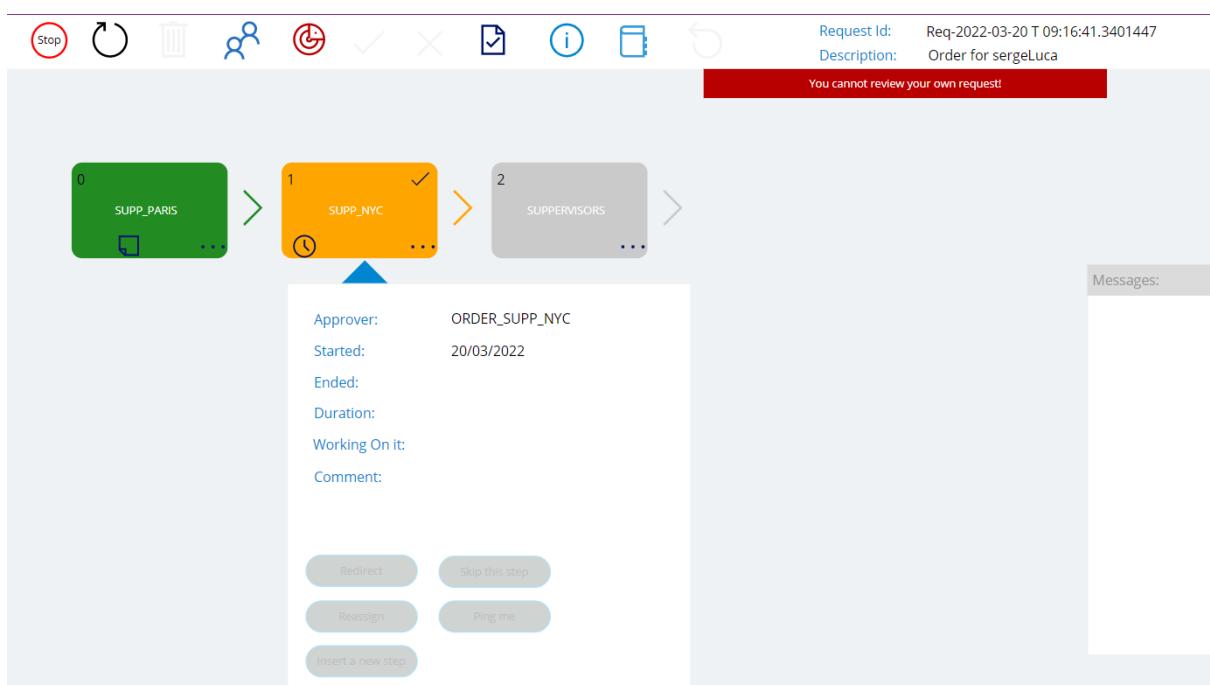
36. Then a window will allow you to add a message and you can click **I Confirm**:



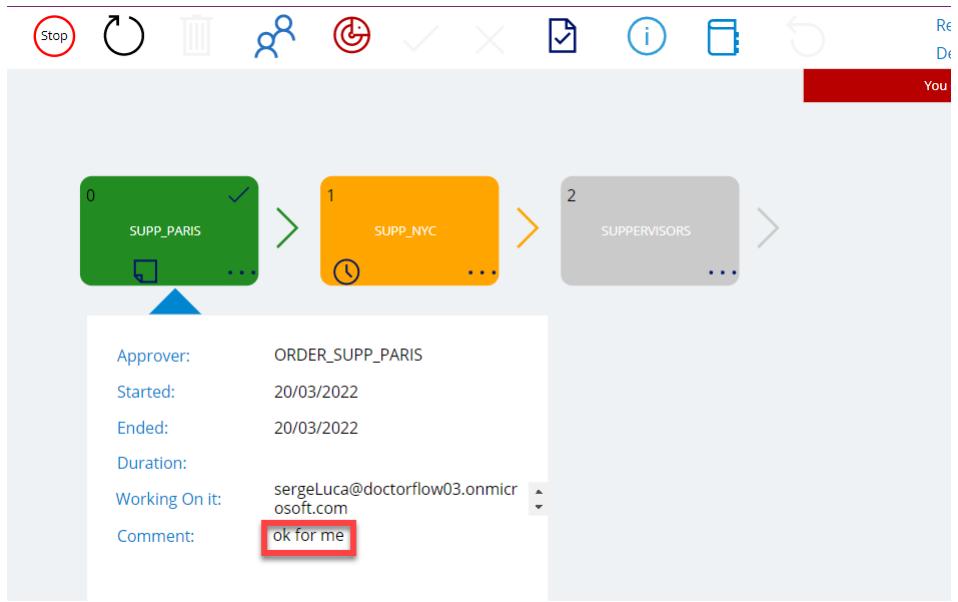
The system will go to the next step, the BPM Toolkit workflow engine is running in the background. You must click the **refresh** icon several times to see the new status:



Then the second step is becoming orange, and the first one if green (meaning Accepted; Rejected would be red):

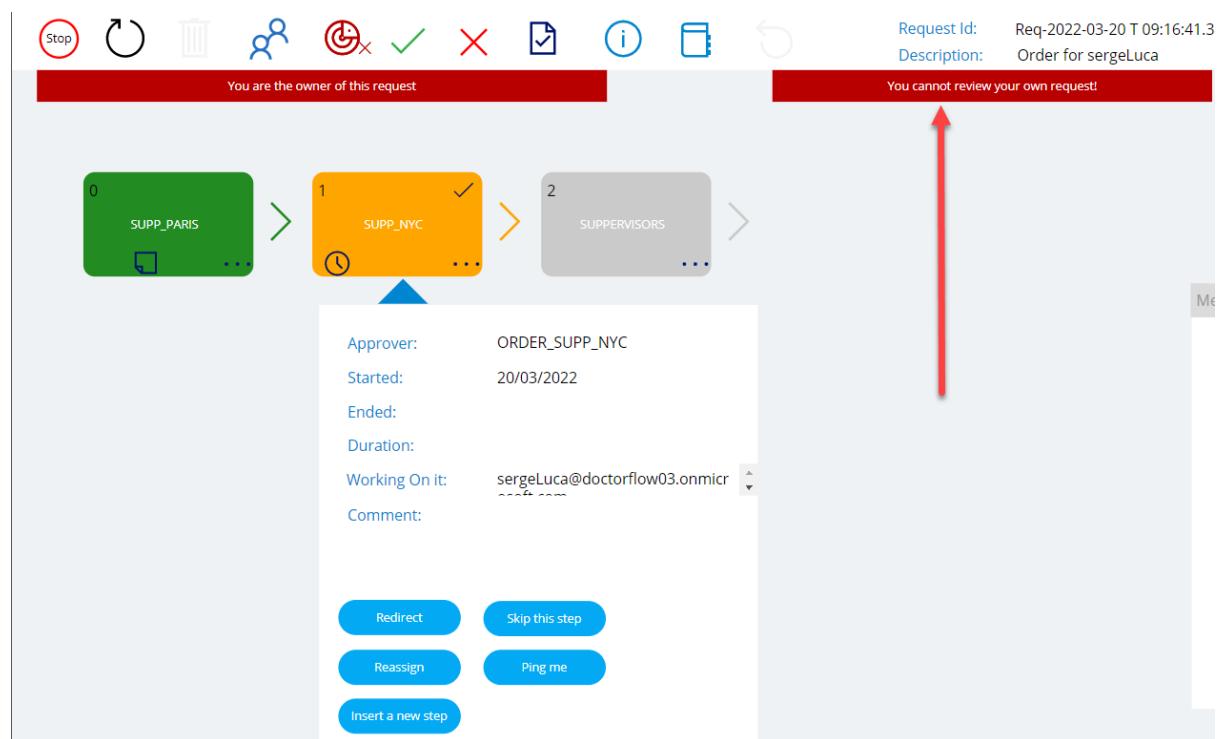


37. If you click the first step, you can still see the message from the previous role:



38. Let us get back to step 1 and take ownership again. There is another concept that we did not mention:

The message “You cannot review your own request”:



Indeed, if someone submits a request (like an HR request), normally he should not be allowed to approve/review his own request. For the demo, it is authorized, but with a warning message. Indeed this is due to the value of “AllowSelfValidation” in the list **BPM Parameters**.

BPM Parameters ☆

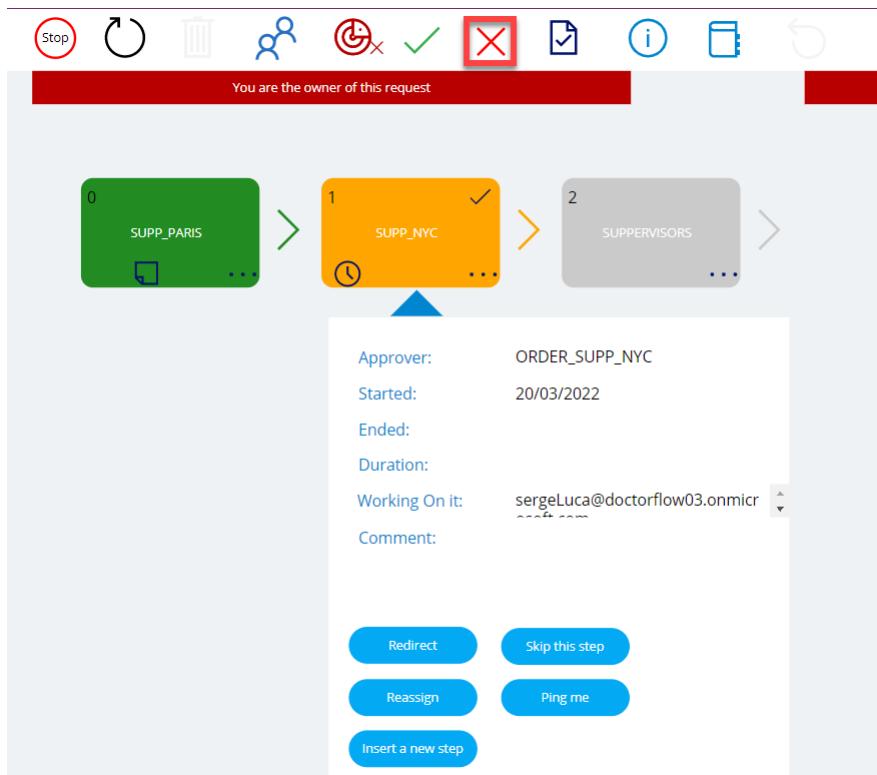
Title	Description	ParamName	ParamValue
	If "No": users cannot see the workflow approval panel if they want to approve their own request (or a request submitted on their own behalf). No should be the default value in production. "Yes" can be used in Test	AllowSelfValidation	Yes

39. If you switch the value to No, you will get this error message if you display the workflow panel of your request:

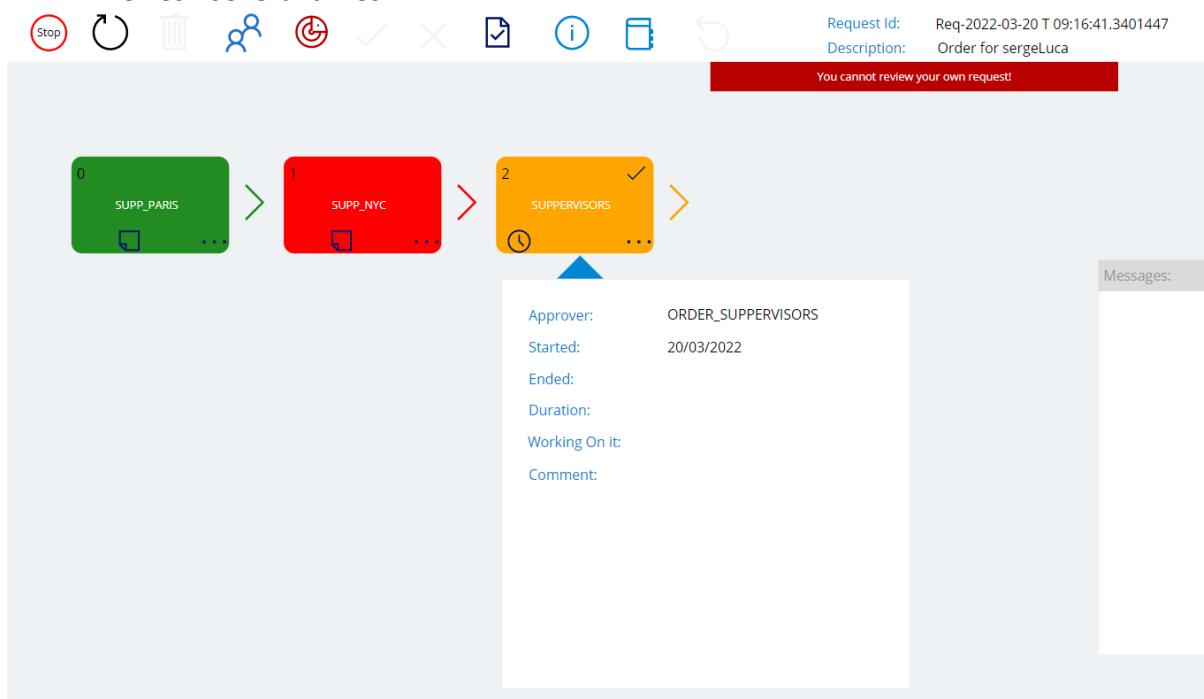


Not Authorized, you cannot approve your own requests...

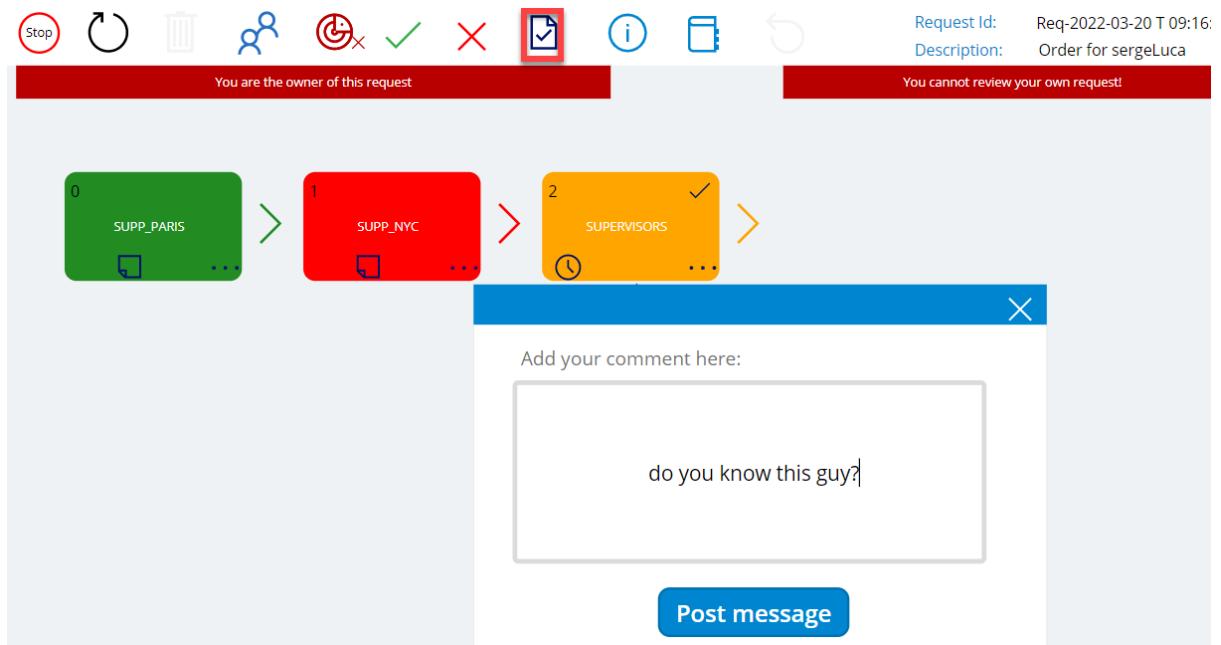
40. Let's switch the value to Yes, and refresh the Workflow panel:
Since you are member of the roleSUPP_NYC,you can take owner ship of the case and reject it:



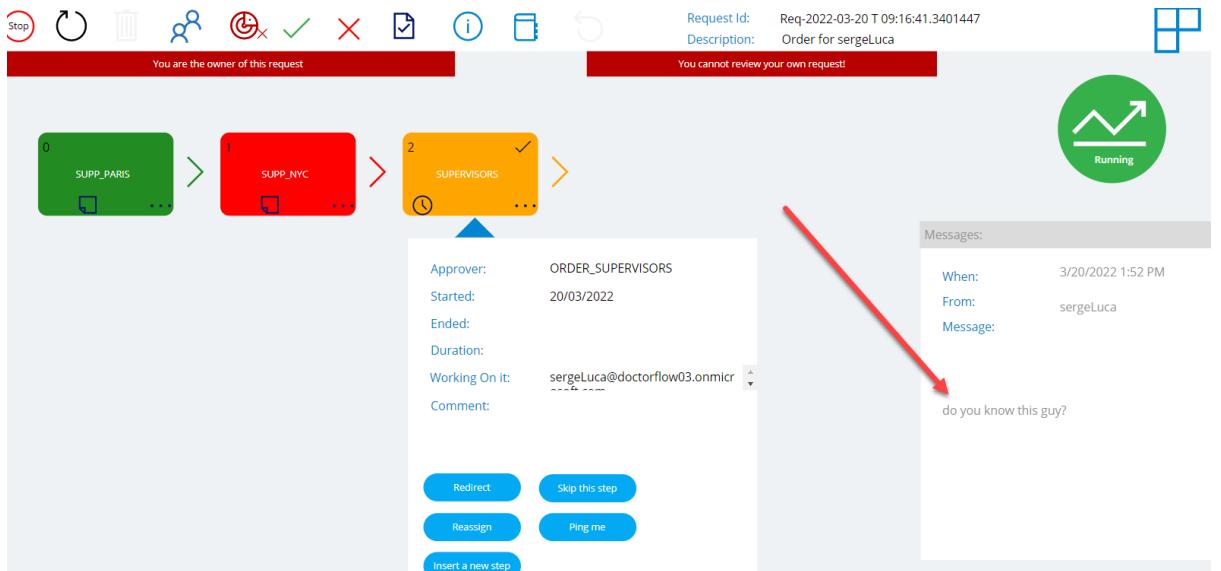
41. Refresh several times:



42. People working on the same request can collaborate and add an internal message. If you click here, a comment panel will show-up:



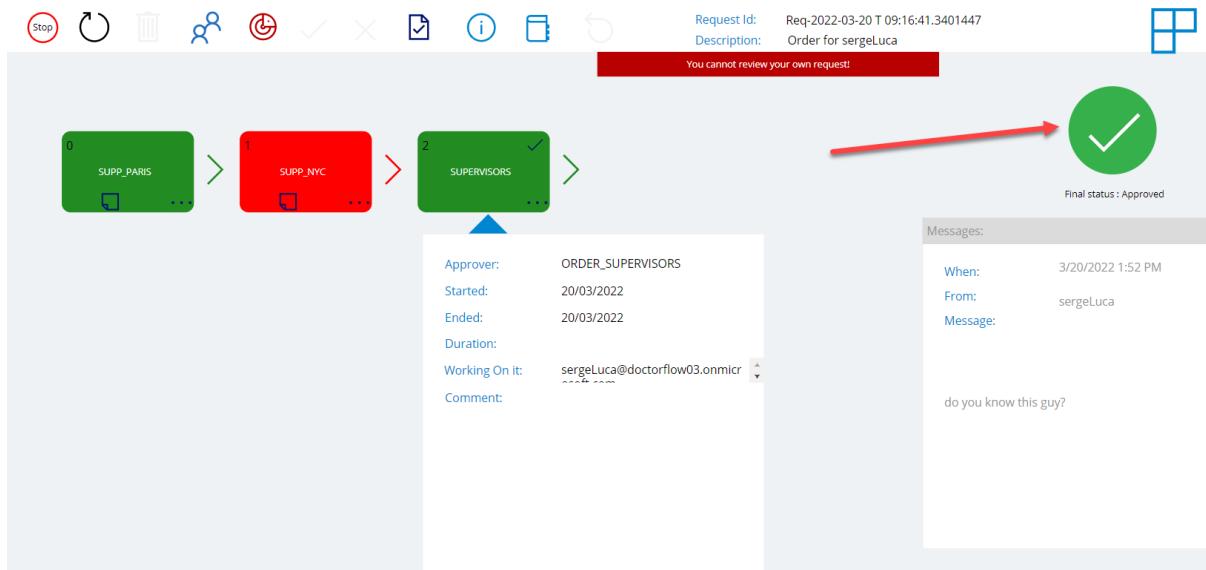
And the message will be displayed here:



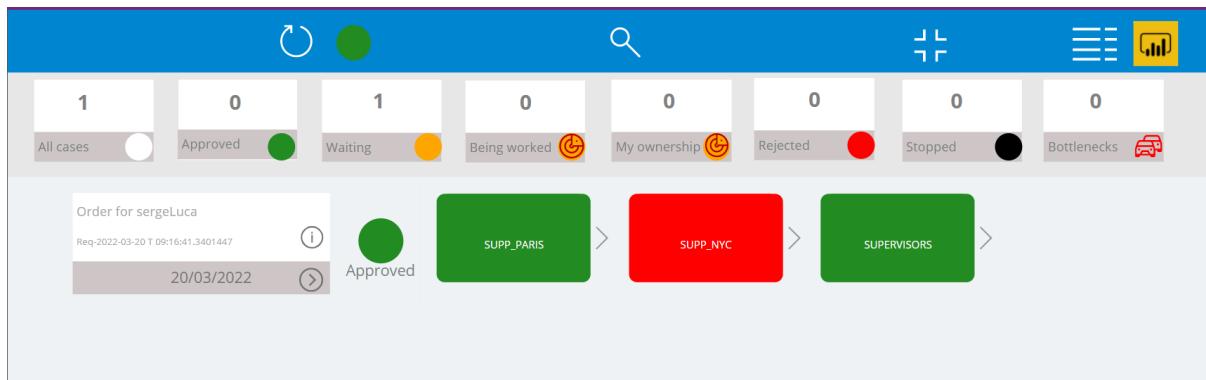
Colleagues can answer/comment.

Some companies want to associate a Microsoft Teams private channel instead of using the internal messaging system. We will demonstrate that later.

43. Let's approve the last step, and refresh; the case will complete:

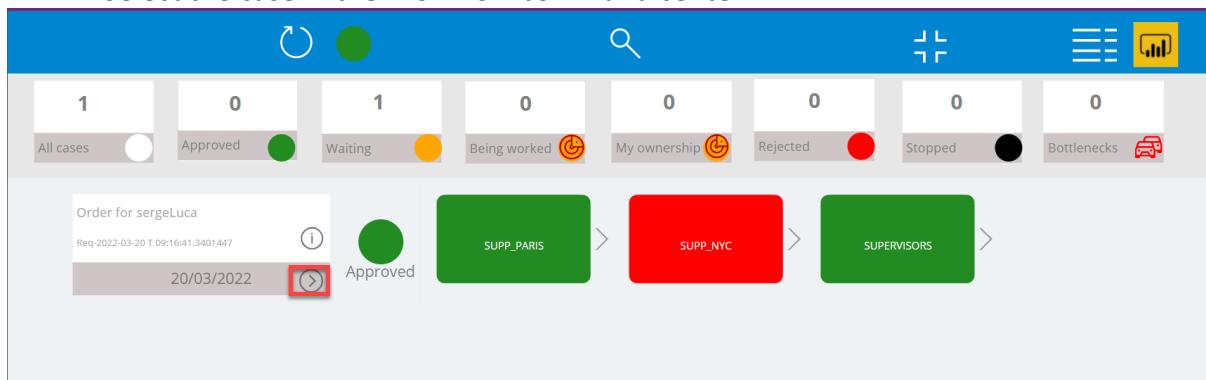


In the Workflow Command Center, you will see the case by clicking on the (green) Approved filter, or on the (white) All cases filter:

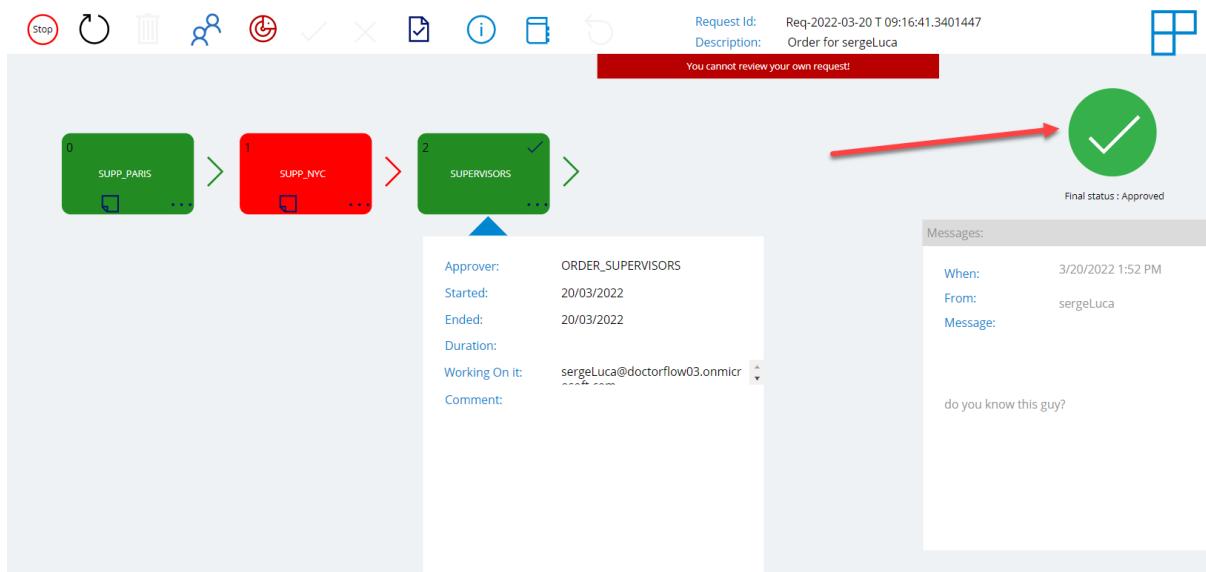


If for any reason you want to reinitialize the case, you can. But this is unusual, and it requires the user to be System.

44. Select the case in the Workflow command center:



And in the Workflow Panel, you will see a (disabled) tool called “Manivelle” to reinitialize the process

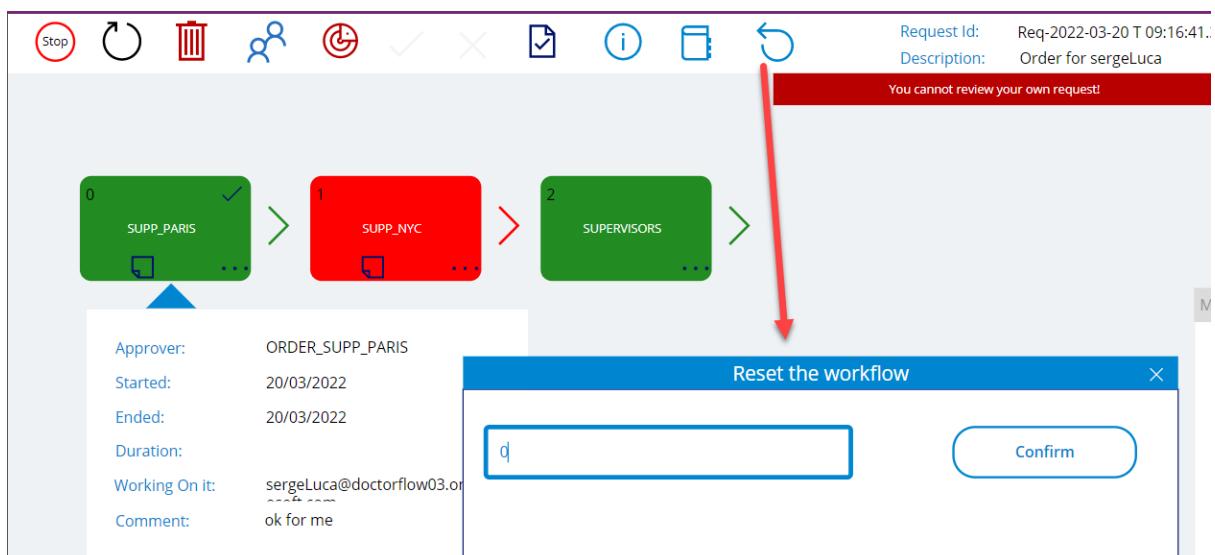


45. To enable it, you have to be System Supervisor, so add yourself in the BPM Persons in Roles list:

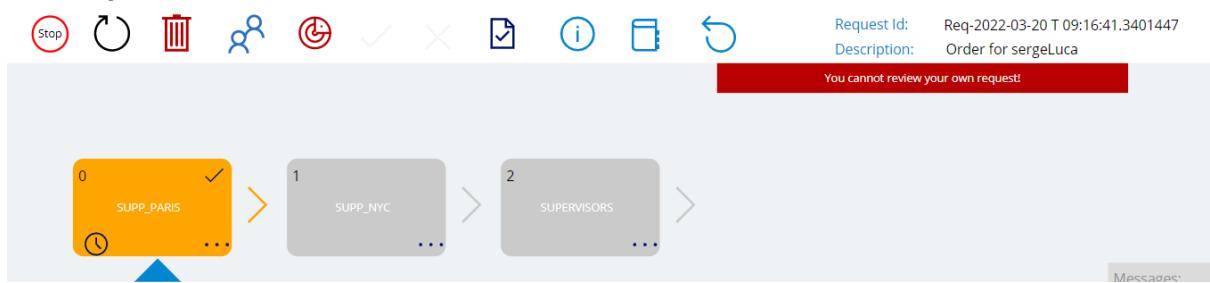
BPM Persons in Roles ☆

Title	PersonEmail	Active	Role
sergeLuca@doctorflow03.onmicrosoft.com	sergeLuca@doctorflow03.onmicrosoft.com	ORDER_SUPERVISORS	
sergeLuca@doctorflow03.onmicrosoft.com	sergeLuca@doctorflow03.onmicrosoft.com	ORDER_SUPP_NYC	
sergeLuca@doctorflow03.onmicrosoft.com	sergeLuca@doctorflow03.onmicrosoft.com	ORDER_SUPP_PARIS	
user1@doctorflow03.onmicrosoft.com	user1@doctorflow03.onmicrosoft.com		
sergeLuca@doctorflow03.onmicrosoft.com	sergeLuca@doctorflow03.onmicrosoft.com	System Supervisor	

46. Refresh the Workflow Panel and the Manivelle will be available. Click, keep Step 0 and confirm:



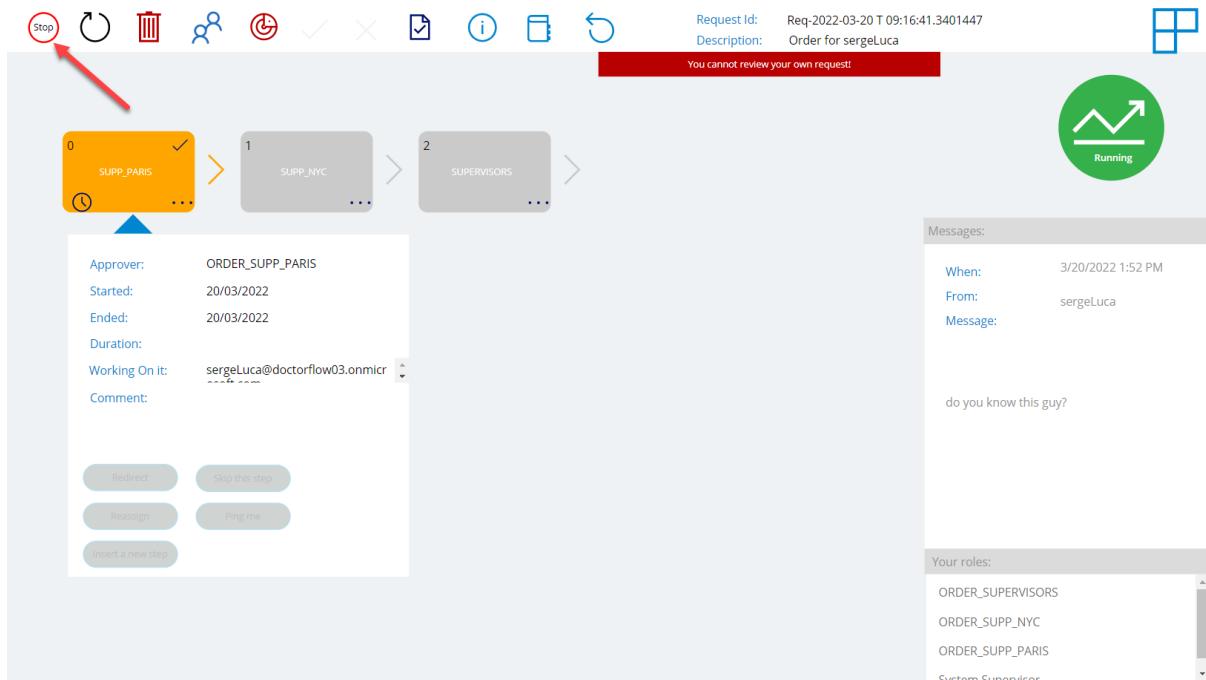
47. Refresh, and you will see that workflow has been reinitialized and is waiting in step 0:



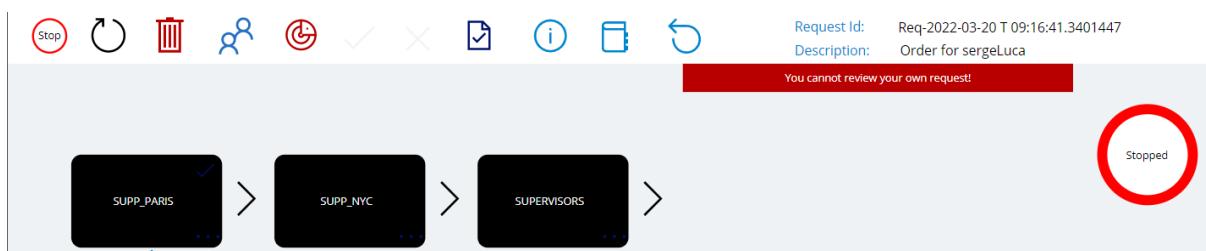
48. Clicking the people icon in the Workflow Panel displays the roles you are part of:

The Workflow Panel shows the same workflow with Step 0 (SUPP_PARIS) highlighted. A red arrow points from the people icon in the top bar to the 'Your roles' section on the right. This section lists: ORDER_SUPERVISORS, ORDER_SUPP_NYC, ORDER_SUPP_PARIS, and System Supervisor. Other visible elements include a green circle with a line graph icon labeled 'Running', a message from sergeLuca, and a sidebar with workflow details like Approver, Started, Ended, Duration, Working On it, Comment, and various action buttons.

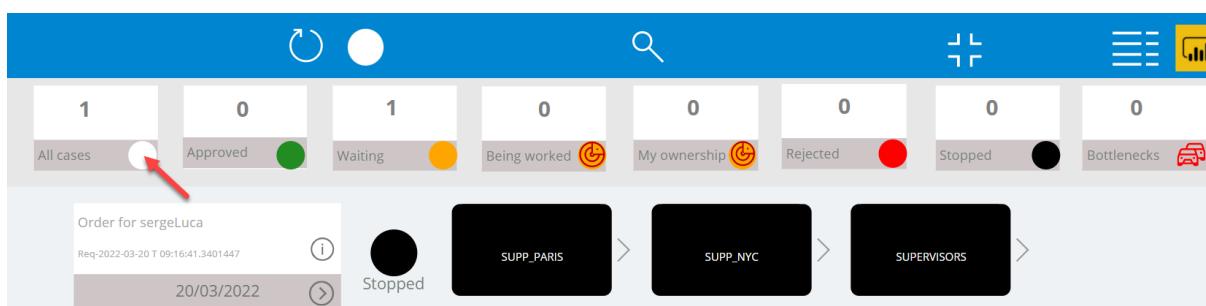
Since you are System supervisor, another super power is to be able to Stop a workflow.



49. Click the Stop button and the steps will become black, the final status will be Stopped:

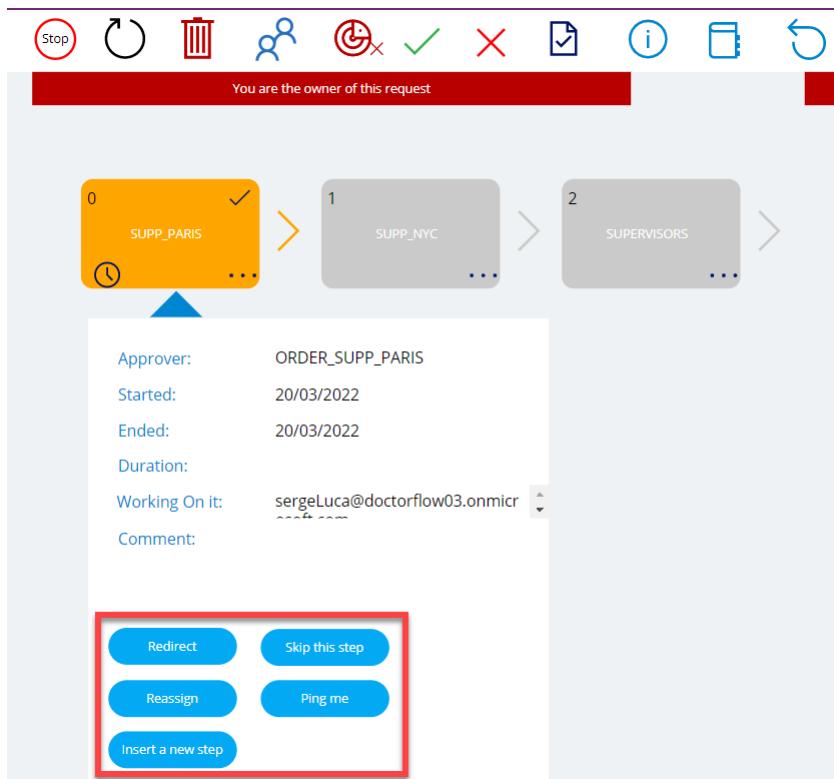


The same in the Workflow Control Center:

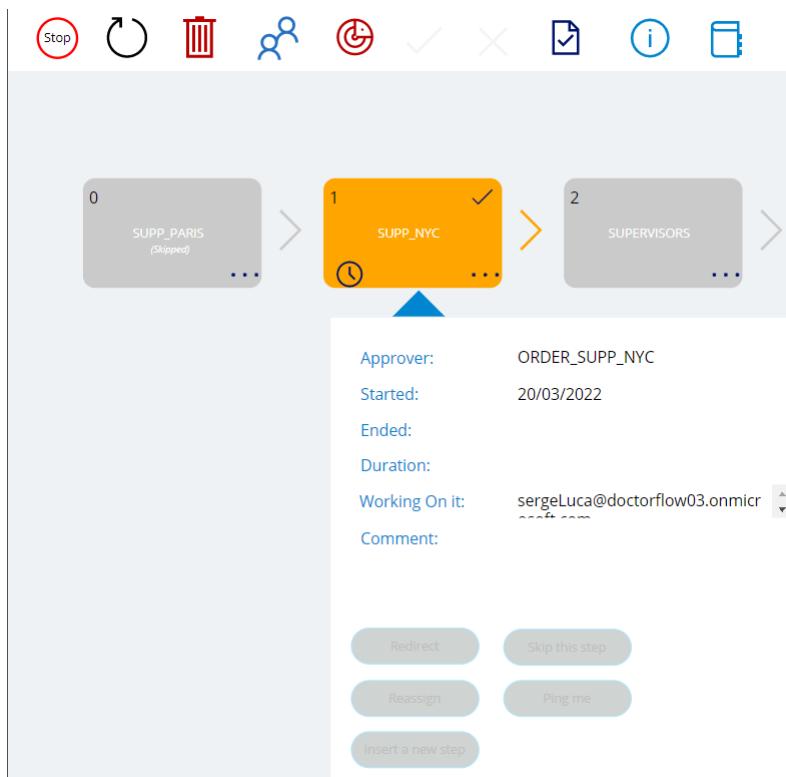


50. Select the Workflow and reinitialize the case again.

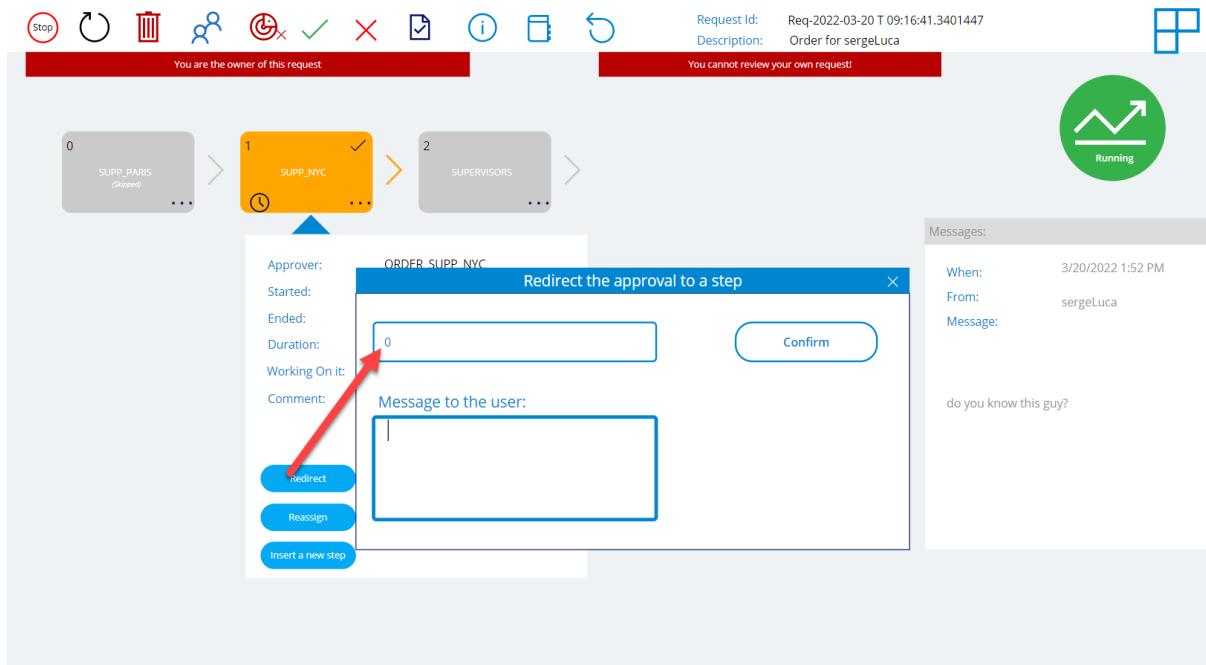
We will describe the following tools:



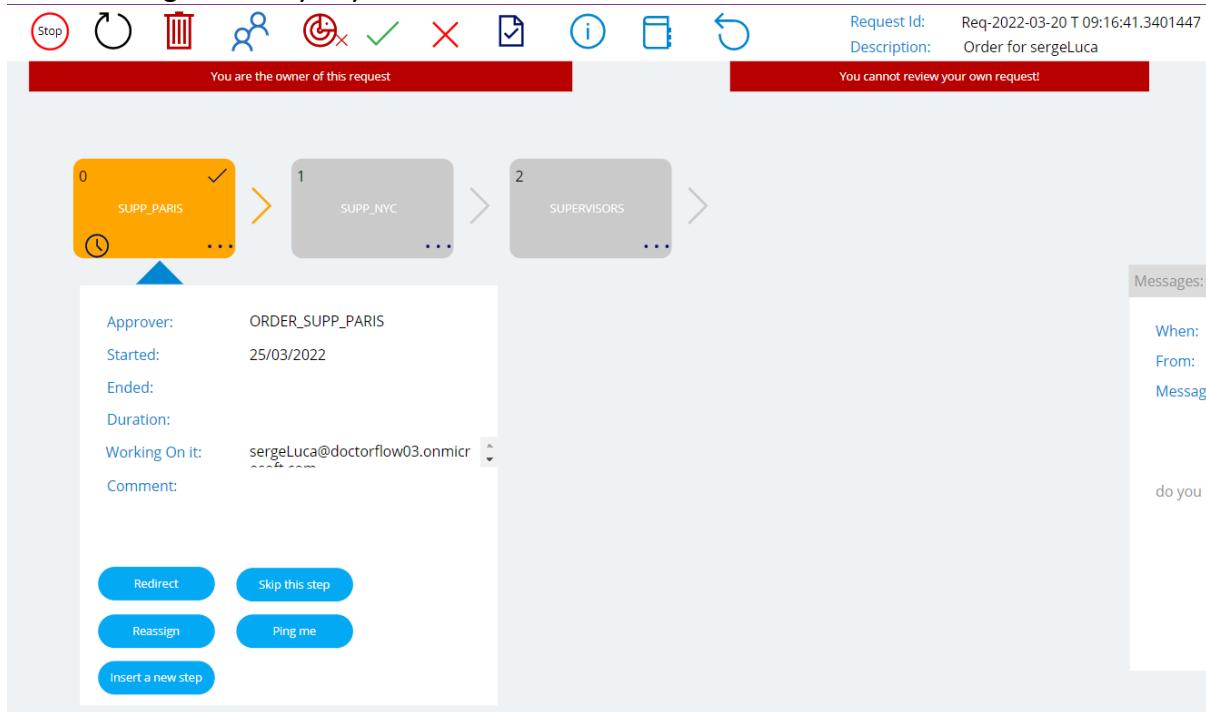
51. Let's say members of the role SUPP_PARIS don't react, you want to skip this step; just click Skip this Step and refresh. The system moved to the next step:



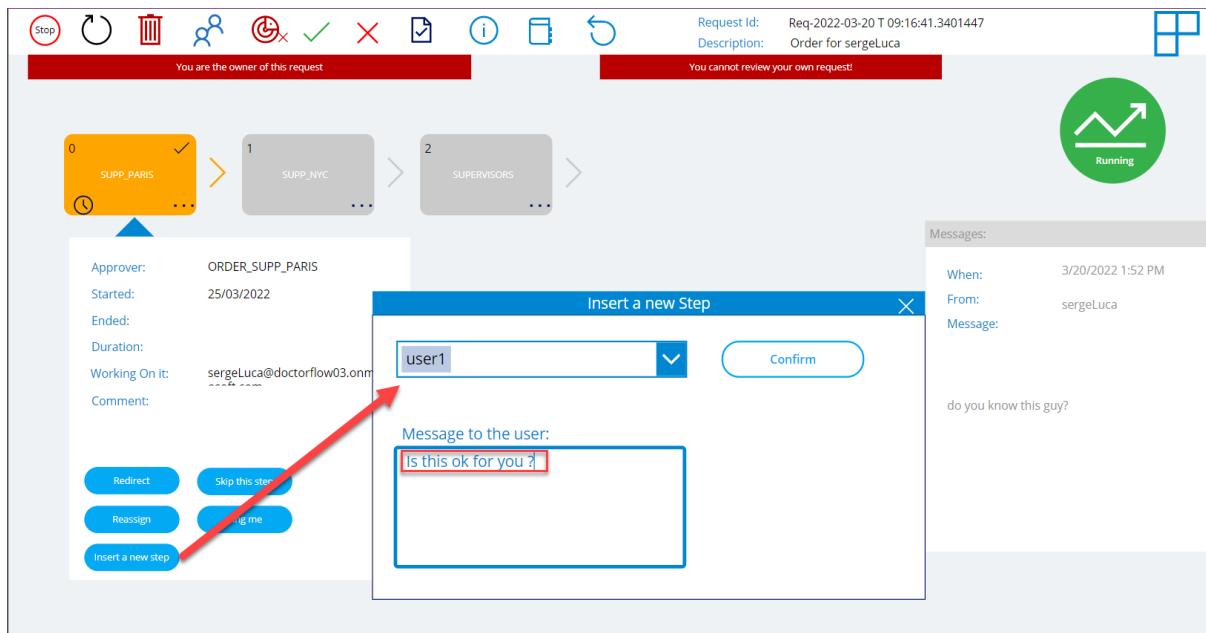
52. If for any reason you want to go back, just take the ownership again and click Redirect, and type 0 to specify the step you want to go to:



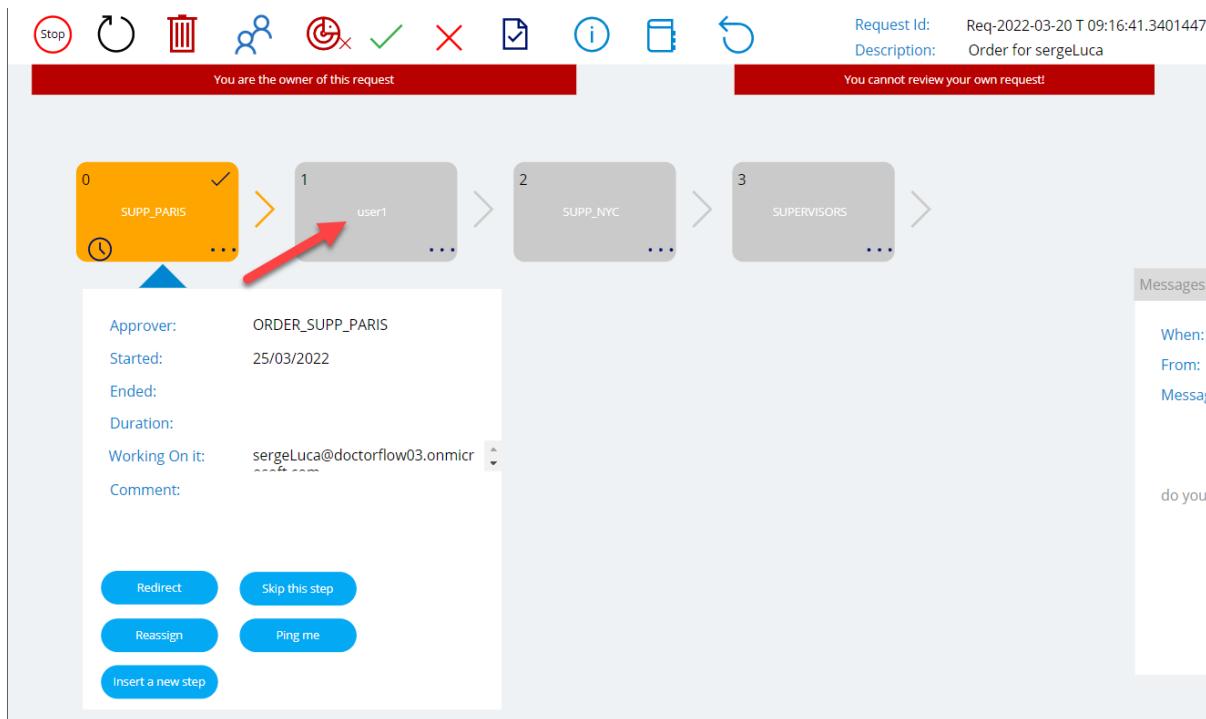
53. Click refresh to refresh the screen; the BPM Toolkit workflow engine will run in the background anyway:



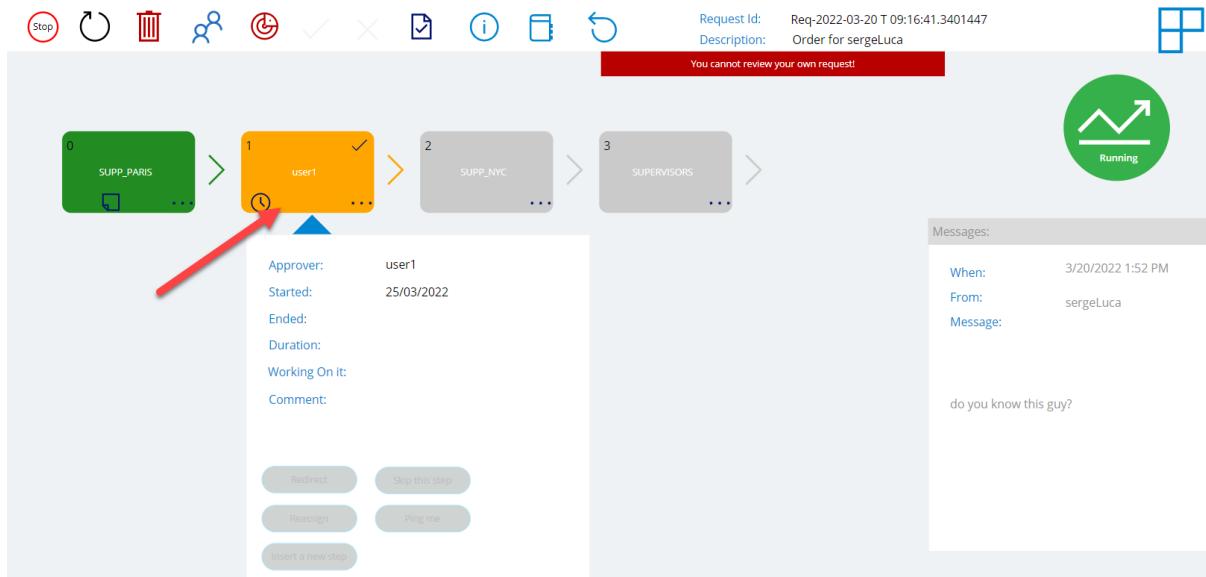
54. Now, let's say you want to add someone (a user) to the approval/review pipeline. Just click "Insert a new Step" and select a user (here user 1) and click Confirm:



A new step will be added for user1:



55. Click the Accept button, and Refresh; the workflow moved to User1:



56. User1 is not a member of the Roles who can supervise the workflow; He/she will get an e-mail notification and he/she will have to open the My Dashboard application to Approve/Review. Log-in as User1 and check your e-mails:

The screenshot shows an email inbox. On the left, there is a list of emails:

- serge Luca: Call for Action : request Or... 10:10 AM (marked as unread)
- This week
- serge Luca: serge Luca is inviting you to... Sun 3/20

On the right, a detailed view of the first email is shown:

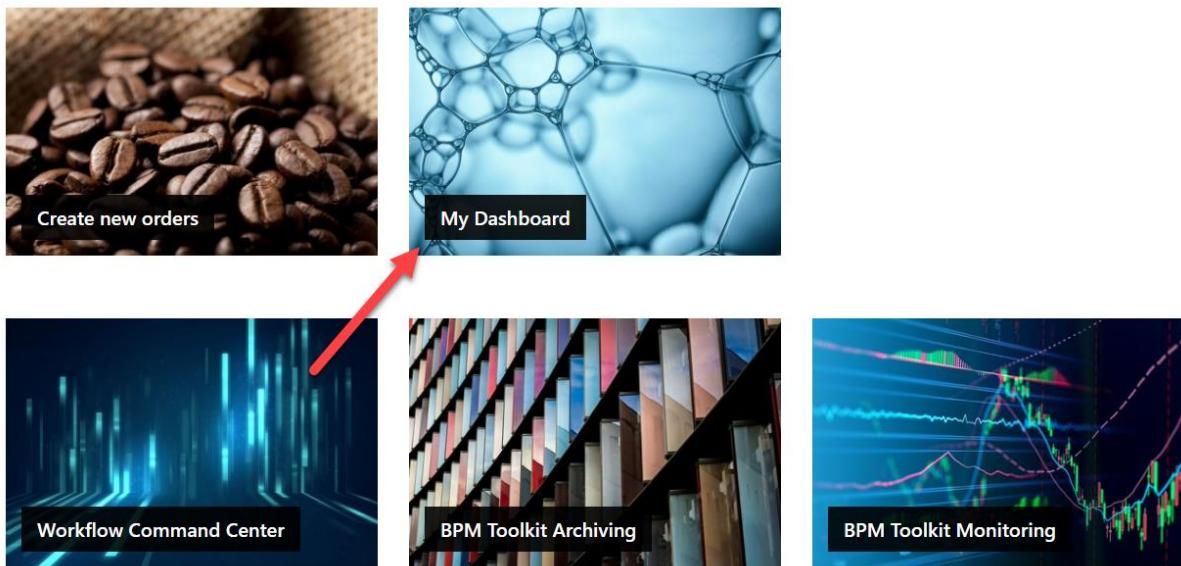
Call for Action : request Order for sergeLuca from serge Luca

This message was sent with Low importance

serge Luca
Fri 3/25/2022 10:10 AM
To: user1

A new case approval or a review task has been assigned to you. Go to My Dashboard App.

57. Go to My Dashboard in the SharePoint site:



58. In the My Dashboard application, click My Tasks:

My requests: user1

Online Forms

All Waiting + Draft Waiting Rejected Approved Draft Stopped

Submitted on	Request Id	Name of requester	Type

Normally, a task is waiting for you:

My tasks, user1

HR Online Forms

All Waiting Rejected Approved

Status	Action	Requests Id	Submitted on	Name of requester	Type	Details	Comments
Yellow	✓ ✗	Req-2022-03-20 T 09:16:41.3401447	25/03/2022	serge	PPA_ORDER	Details	Comments

59. If you click the Details links, you will see the submitted data in the hosted form (in read mode):

New Order



Product:
Surface Laptop 2

Amount:
1200

Account:
serge

Contact:
serge luca

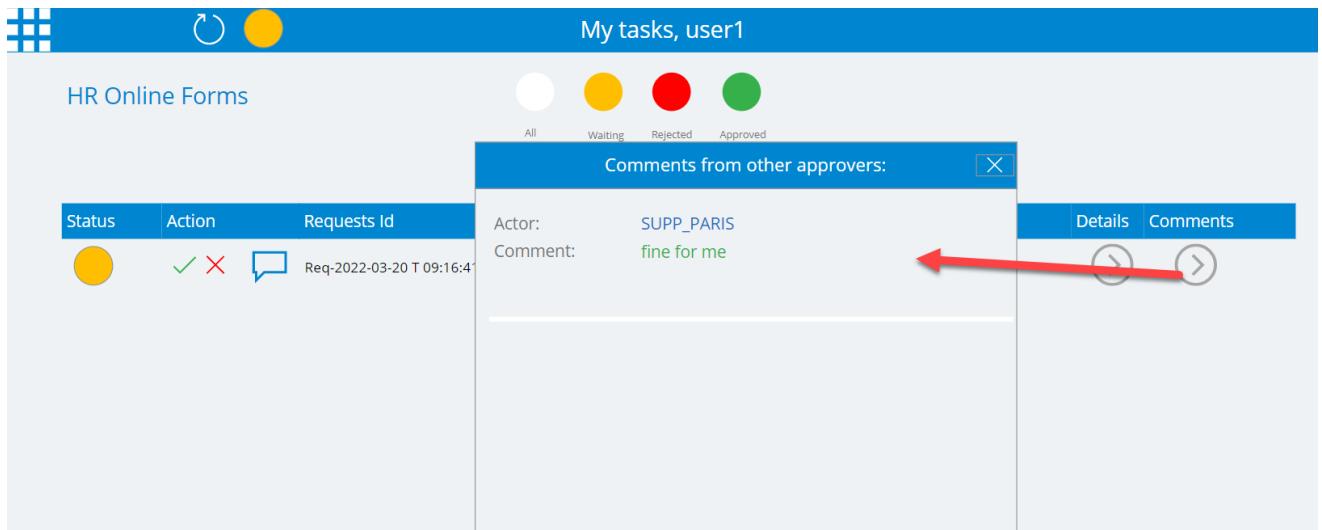
Contact e-mail:
sergeluca@shareql.com

On Behalf of:
sergeLuca@doctorflow03.onmicrosoft.com ✓

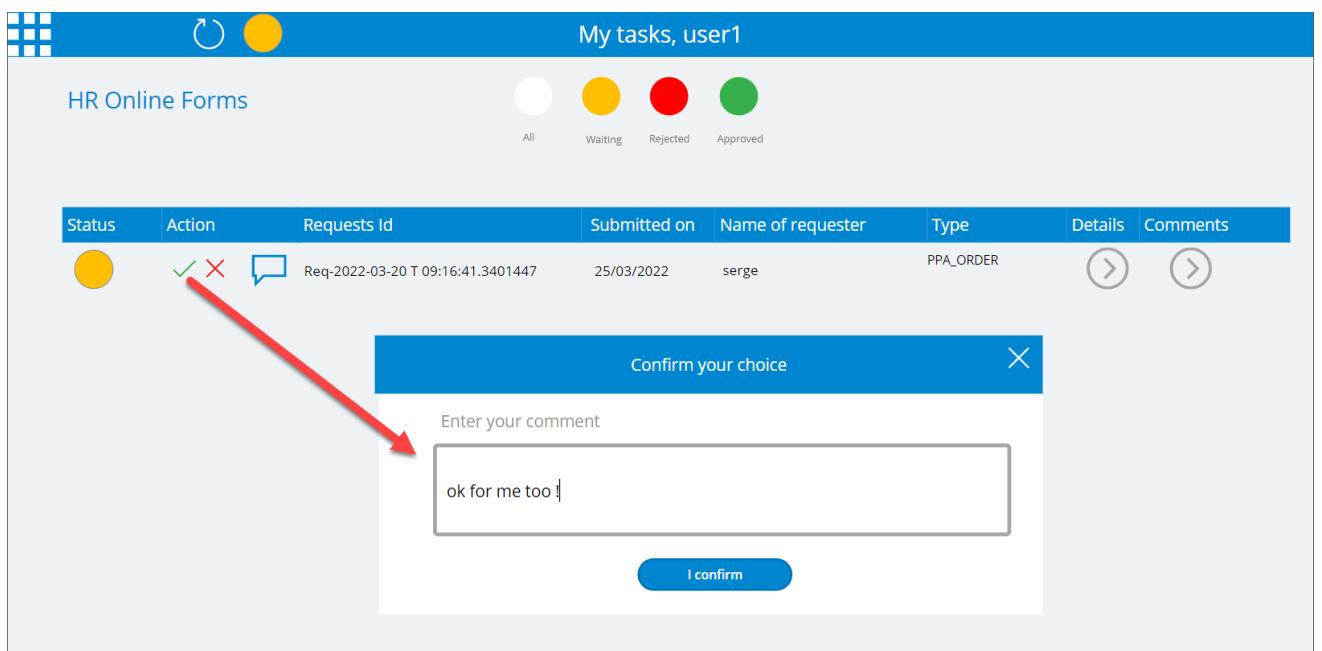
Submitter:
user1@doctorflow03.onmicrosoft.com

[Save \(Draft\)](#) [Submit to approval](#)

60. If you click Comments, you will see the comments from previous approvers:



61. Close this window and click the Accept button, add a comment:



62. If you go back to the workflow center with your previous account, you will see that the workflow moved to the next step:



PART 2. Extend the Meta workflow

Add individual users instead of roles

You can mix-up roles and users in a metaworkflow.

63. In the Actor column of the BPM Metaworkflow you just need to add an e-mail address;

Normally the workflow you did create so far looks like this:

BPM Meta Workflows ☆

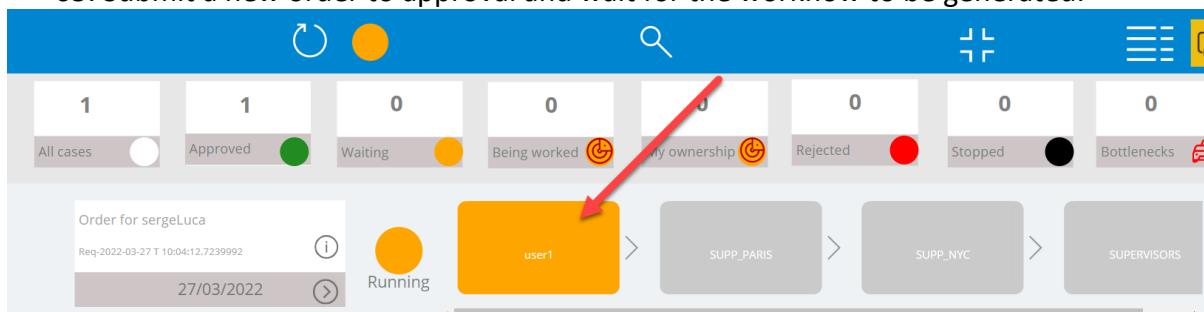
Title	Step	Actor	Type of actor	CaseType	ActionExpected
	0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

64. Let's say you want user1 to be always involved in the first step of the workflow :

BPM Meta Workflows ☆

Title	Step	Actor	Type of actor	CaseType	ActionExpected
	0	user1@doctorflow03.onmicrosoft.com		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	3	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

65. Submit a new order to approval and wait for the workflow to be generated.



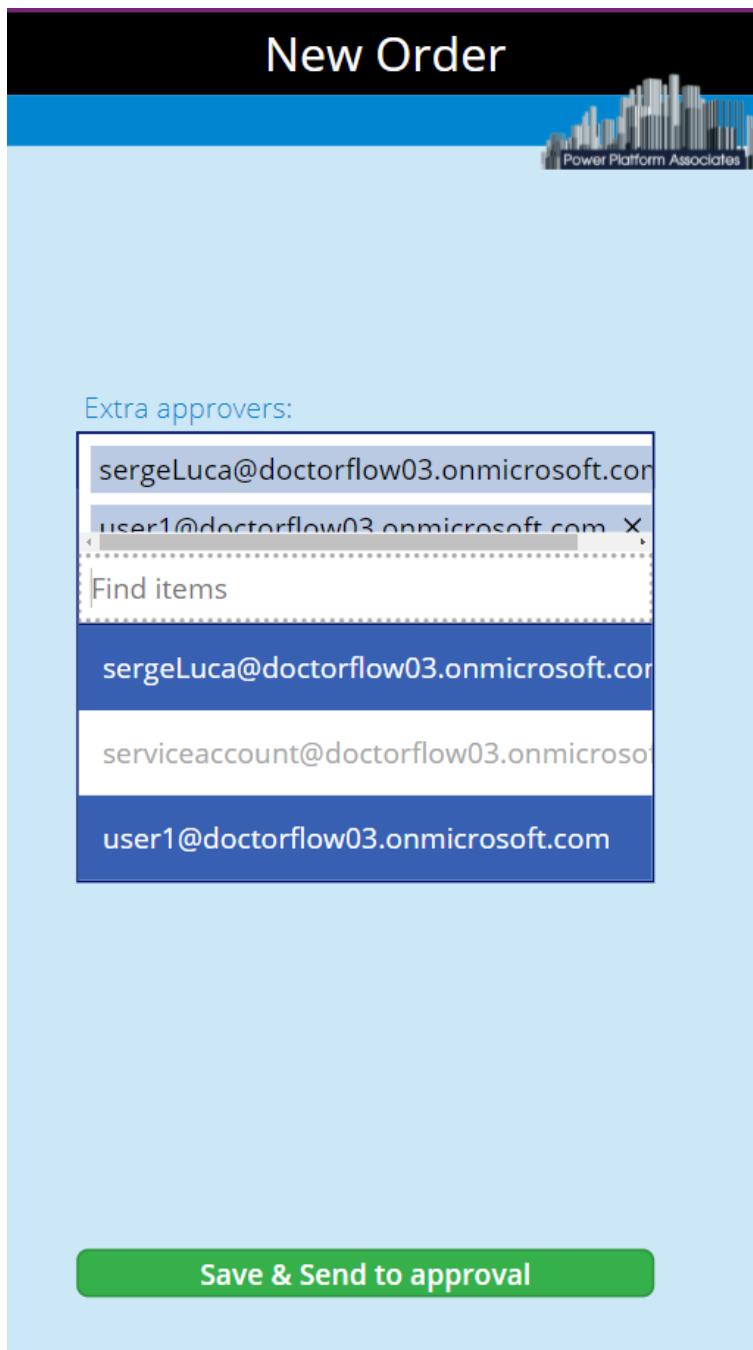
66. And since the “actor” is an individual user, he won’t be able to interact with the Workflow Panel, but he will a task and a notification instead. Log-in as user1 and go to M Dashboard; check your tasks:

67. You might want to dynamically add n users in the workflow when you submit a request; this is possible with the BPM Toolkit. Instead of hardcoding the user email address, just specify “Actors”:

BPM Meta Workflows ★

Title	Step ↑ ↓	Actor	Type of actor	CaseType	ActionExpected
3	0	Actors		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	3	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

68. When you submit your order, you can add some extra approvers:



Your order will look like this:



69. Follow your submitted request in the My Dashboard:

You can always follow your submitted requests in the My Dashboard:

Status	Submitted on	Request Id	Name of requester	Type	Action
	27/03/2022	Req-2022-03-27 T 10:36:21.7483245	sergeLuca	PPA_ORDER	(>) X
	27/03/2022	Req-2022-03-27 T 10:04:12.7239992	sergeLuca	PPA_ORDER	(>) X
	20/03/2022	Req-2022-03-20 T 09:06:18.4743502	sergeLuca		(edit) X

Order for sergeLuca

```

graph LR
    A[sergeLuca] --> B[user1]
    B --> C[SUPP_PARIS]
    C --> D[SUPP_NYC]
    D --> E[SUPERVISORS]
  
```

In the current version, you don't see which actor approved or not. This is on purpose: indeed, if a user submits a request to HR, submitters are not supposed to see which actor approved or rejected, this is supposed to be confidential. A new release of the BPM Toolkit will provide an option to see it or not in the Meta workflow configuration or in the Case configuration.

Also, if someone in the pipeline add another approver on the fly, it won't be visible to end-users for the same reason.

Automatic Goto

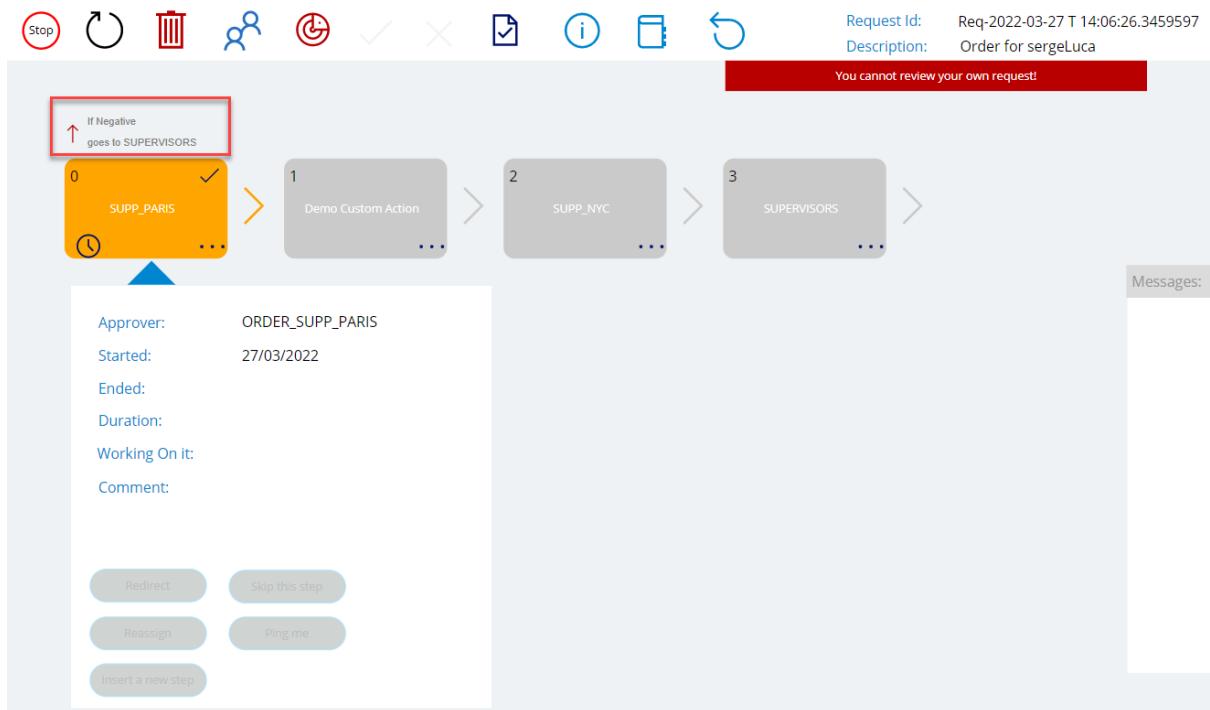
What we want to implement is the following scenario:

70. If the role SUPP_PARIS returns a negative feedback (Reject), we want to skip the remaining steps and go directly to SUPERVISORS:

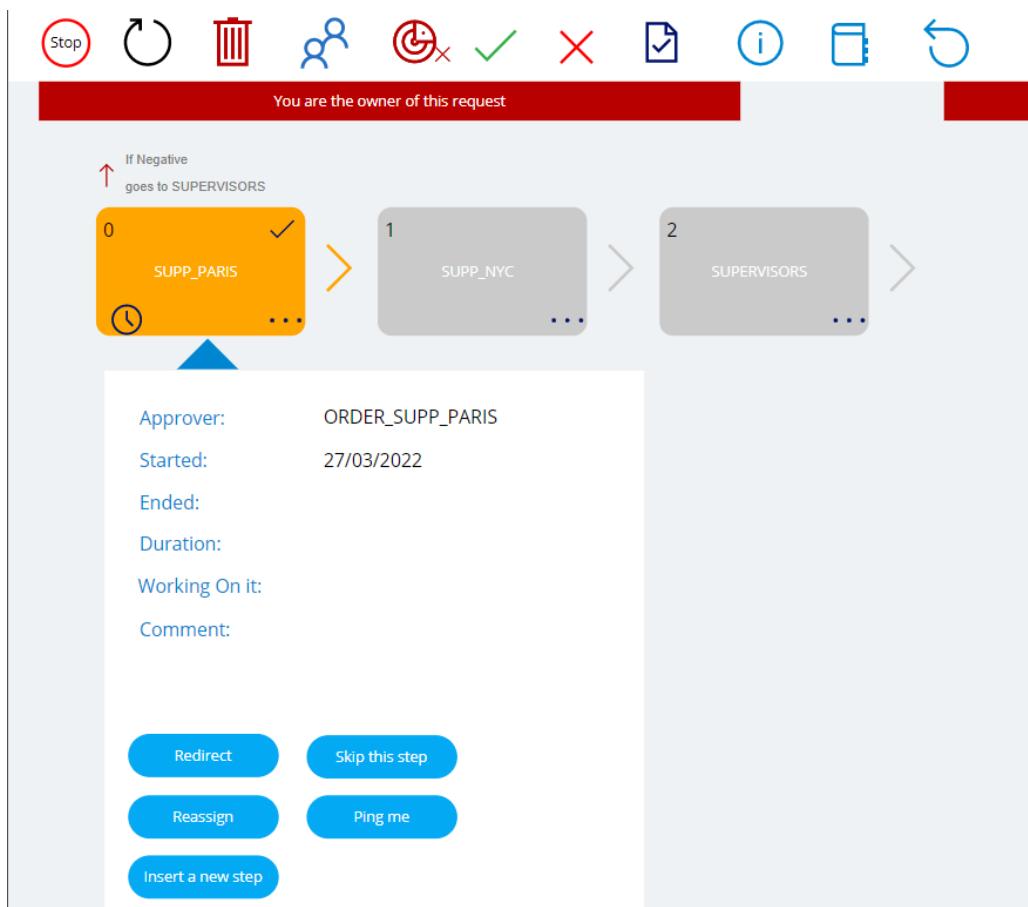
BPM Meta Workflows ☆									
Step ▾	Actor ▾	Type of a... ▾	CaseType ▾	ActionExpected ▾	Goto Step ▾	If property ▾	If operation ▾	If value ▾	If Goto ▾
0	ORDER_SUPP_PARIS	PPA_ORDER_WORKFLOW	Feedback			Status	=	Negative	ORDER_SUPERVISORS
1	ORDER_SUPP_NYC	PPA_ORDER_WORKFLOW	Feedback						
3	ORDER_SUPERVISORS	PPA_ORDER_WORKFLOW	Feedback						

71. Submit a new order.

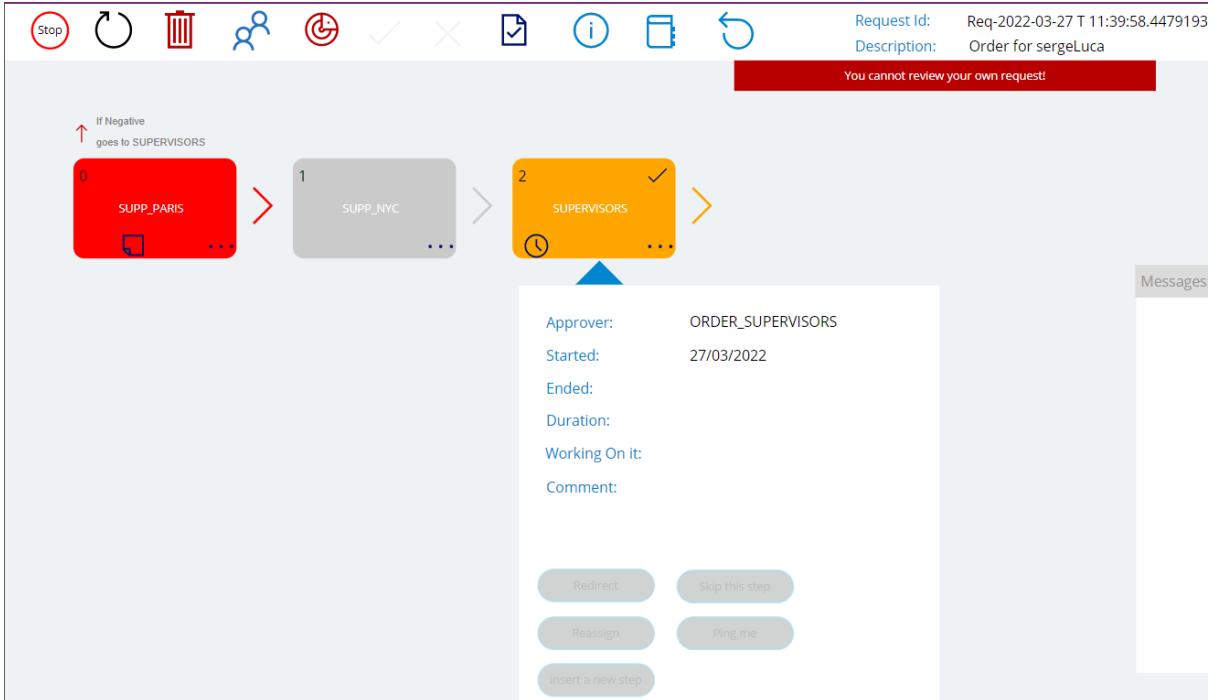
You will see that you can see the GOTO in the workflow design:



72. Now, take ownership of the workflow:



73. Reject the step and the workflow will jump to SUPERVISORS:



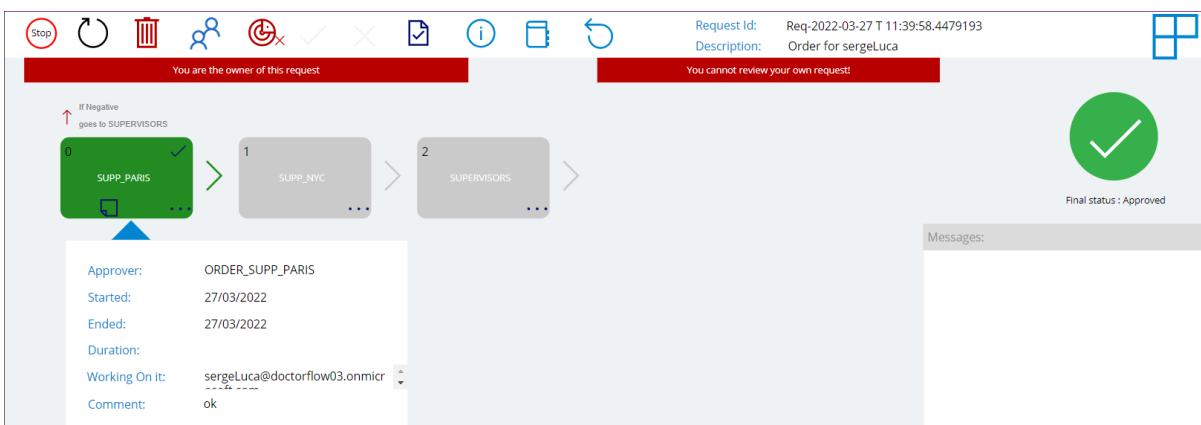
74. And of course, you can also have a backward GOTO.

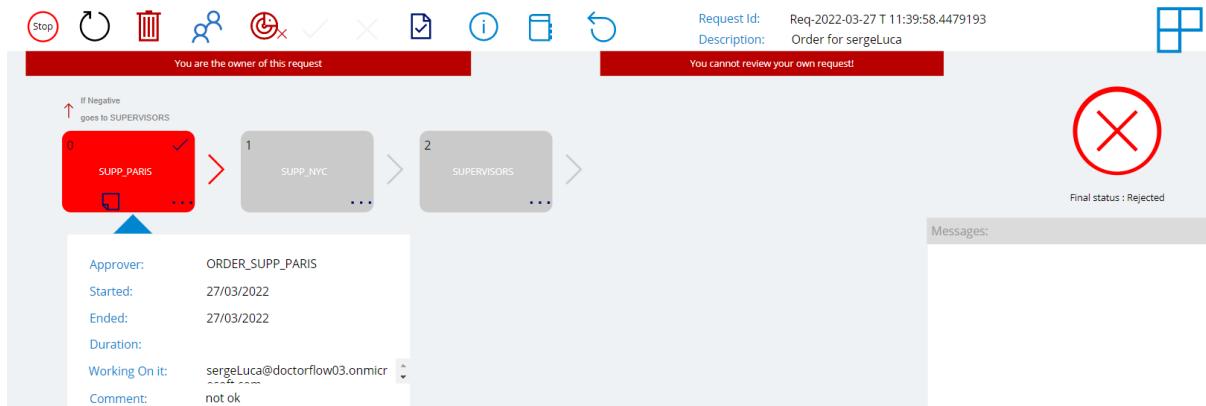
Other verbs for the ActionExpected column are ApprovalStop, Stop, ApproveStop, RejectStop

ApprovalStop will stop the workflow and set its final status to Approved if someone Approves the request:

BPM Meta Workflows ☆

Step ▾	Actor ▾	Type of a... ▾	CaseType ▾	ActionExpected ▾	Goto Step ▾
0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	ApprovalStop	
1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback	
3	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback	





ApproveStop will stop the workflow if someone approves the step and will set the final status of the workflow to Approved, but it will go to the next step if someone Reject.

RejectStop will stops the workflow if someone approves the step and will set the final status of the workflow to Approved, but it will go to the next step if someone Reject.

CallWorkflow is a way to add a custom action. The custom action should be a flow starting with a trigger When a HTTP request is received.

Creating a custom action

75. Create a flow called PPA_OrderCustomAction
76. Start the flow with the trigger When a HTTP request is received.

The JSON schema of the trigger should be:

```
{
  "type": "object",
  "properties": {
    "CaseID": {
      "type": "string"
    },
    "Step": {
      "type": "string"
    }
  }
}
```

When a HTTP request is received

HTTP POST URL URL will be generated after save

Request Body JSON Schema

```
{  
  "type": "object",  
  "properties": {  
    "CaseID": {  
      "type": "string"  
    },  
    "Step": {  
      "type": "string"  
    }  
  }  
}
```

Use sample payload to generate schema

Show advanced options ▾

77. Add a Compose to capture the CaseID and the Step number:

When a HTTP request is received

HTTP POST URL URL will be generated after save [Copy]

Request Body JSON Schema

```
{  
    "type": "object",  
    "properties": {  
        "CaseID": {  
            "type": "string"  
        },  
        "Step": {  
            "type": "string"  
        }  
    }  
}
```

[Use sample payload to generate schema](#)

[Show advanced options](#) ▾

↓

{ } Compose

* Inputs CaseID ; [] CaseID [] Step: [] Step []

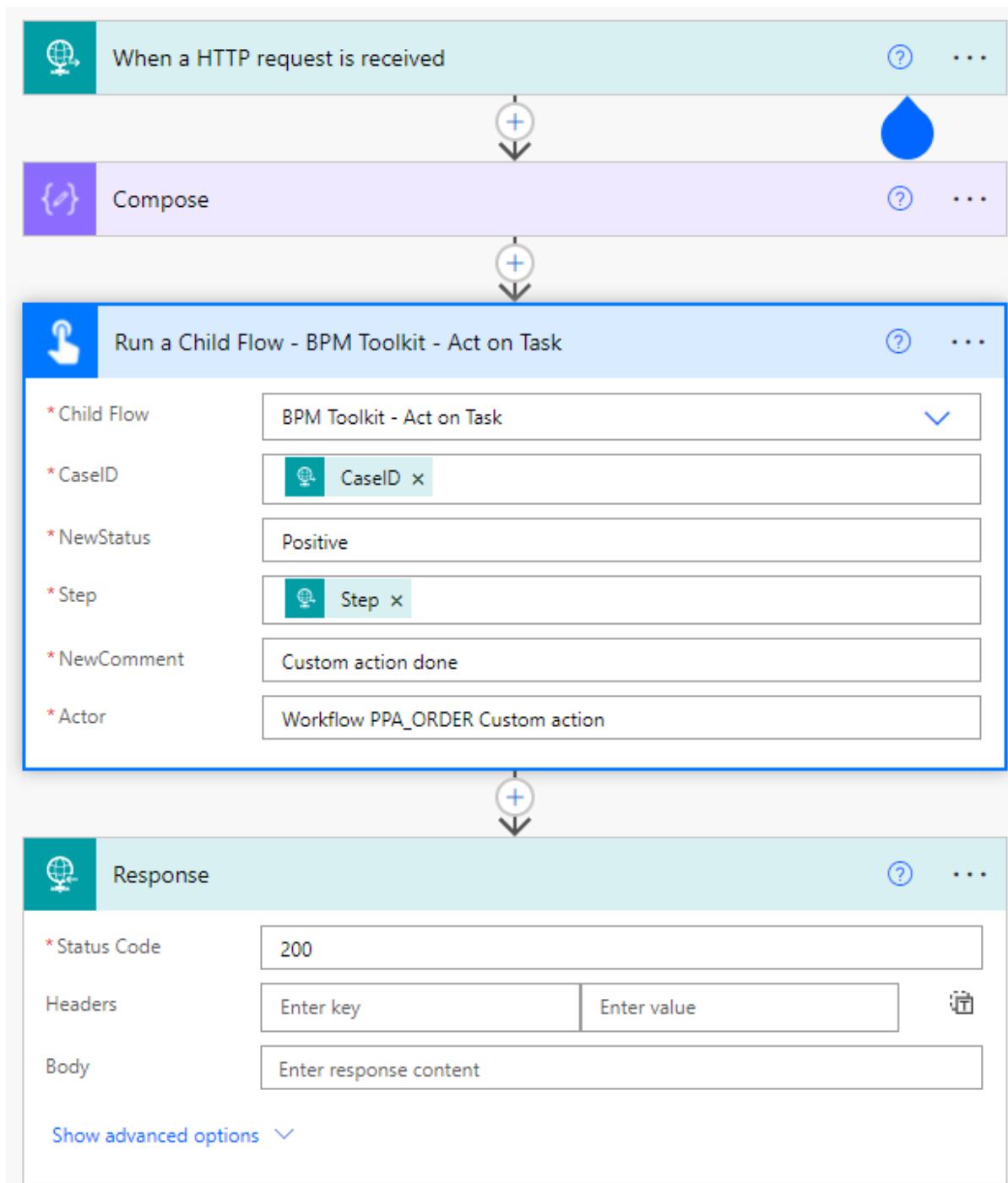
78. Save the flow and click here to grab its URL:

The screenshot shows the configuration of an Azure Logic App trigger. At the top, it says "When a HTTP request is received". Below that, the "HTTP POST URL" is set to <https://prod-142.westeurope.logic.azure.com:443/workflows/4ef6ad1dfcc>. A red arrow points from the top right towards this URL field. Below the URL is the "Request Body JSON Schema", which contains the following JSON schema:

```
{  
  "type": "object",  
  "properties": {  
    "CaseID": {  
      "type": "string"  
    },  
    "Step": {  
      "type": "string"  
    }  
  }  
}
```

Below the schema is a link "Use sample payload to generate schema". Underneath the schema is a "Show advanced options" dropdown. The main configuration area has a purple header bar with a "Compose" button and three dots. Below the bar, there is a row for "Inputs" with two entries: "CaseID" and "Step".

79. After the Compose, call a child flow from BPM Toolkit : **BPM Toolkit – Act on Task**, and pass the following values:

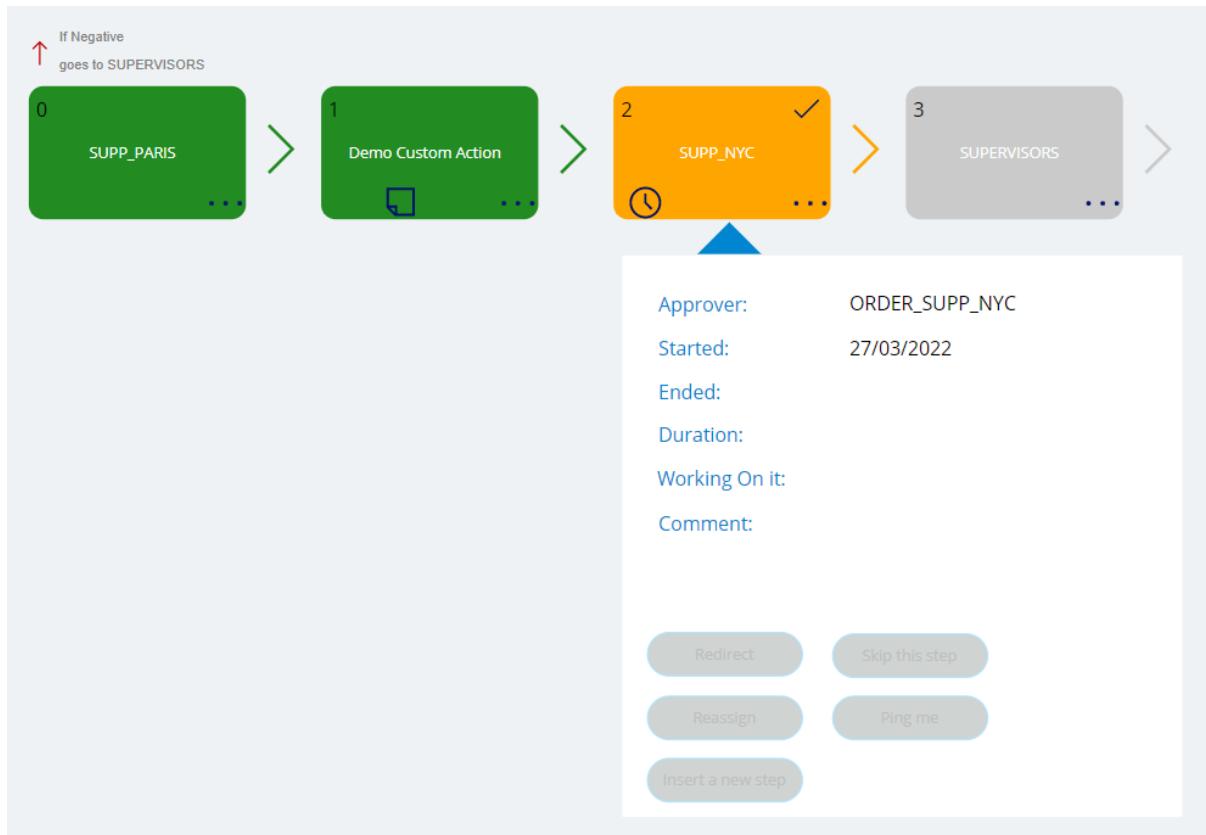


80. And the final action should be the Response Action, returning a 200 status code.
 The **BPM Toolkit – Act on Task** child flow is an action that will trigger the workflow engine for moving to the next step.

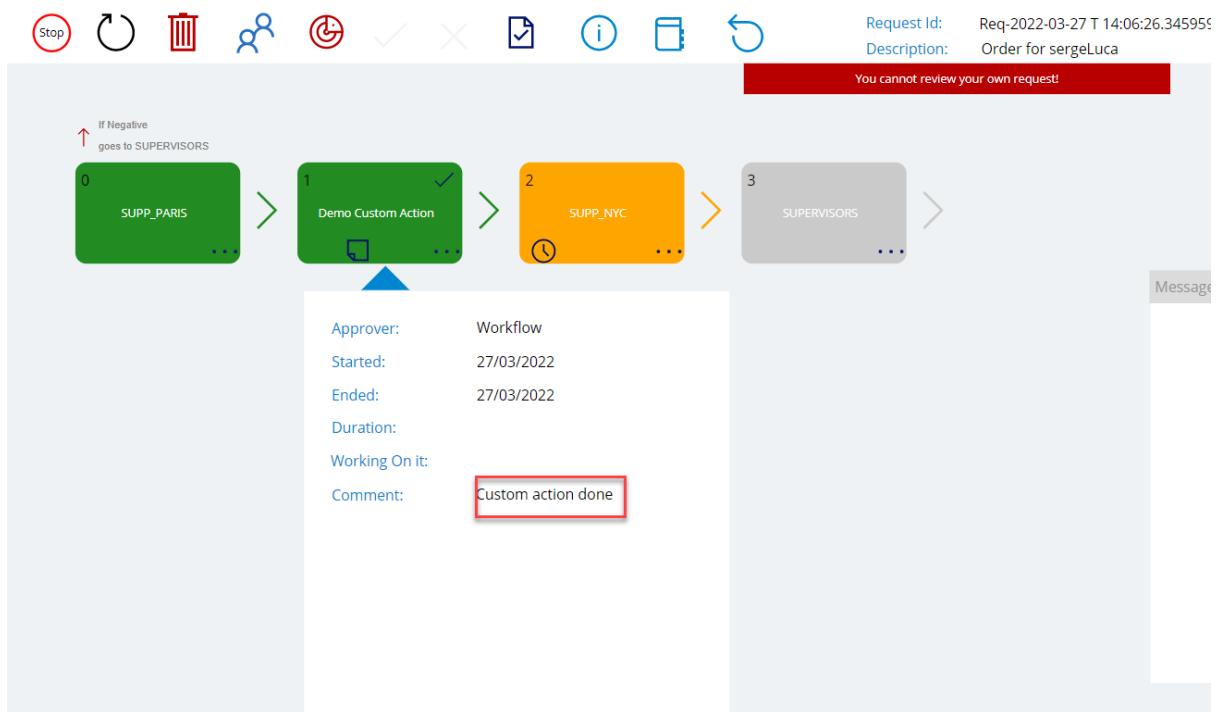
If NewStatus is Positive, the rectangle will be green, if it is Negative it will be red, indicating that something went wrong.

The NewComment value will be visible in the action step on the workflow.

81. If you submit a new Order based on this workflow, you will see:



82. If you click the workflow action, you will see the comment:

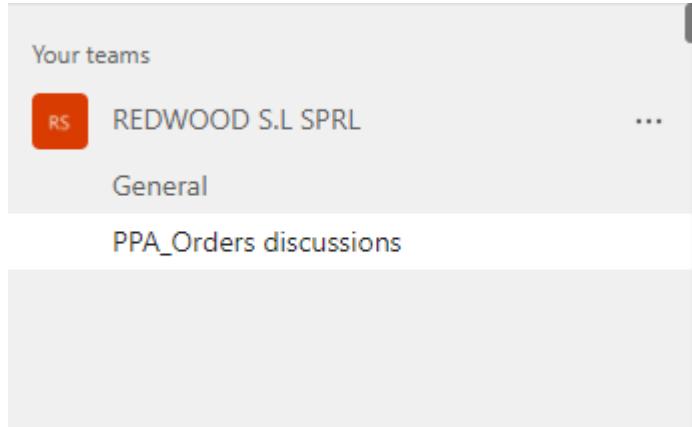


PART 3. Integration with Microsoft Teams

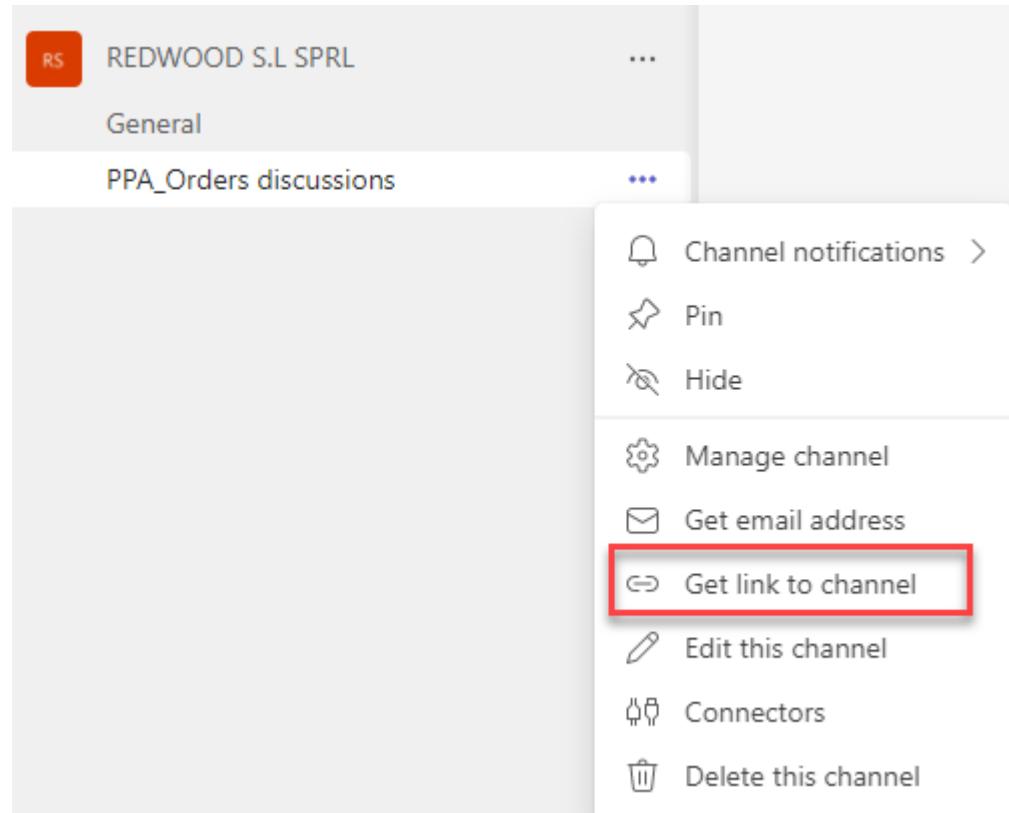
If you remember well, the workflow panel provides an internal messaging system to make sure all roles involved in the case can communicate. For compliance compatibility, the Internal messages are archived when the case is archived.

Some companies prefer using Teams. The BPM Toolkit provides a Teams integration; each request can be associated with a channel (public or private).

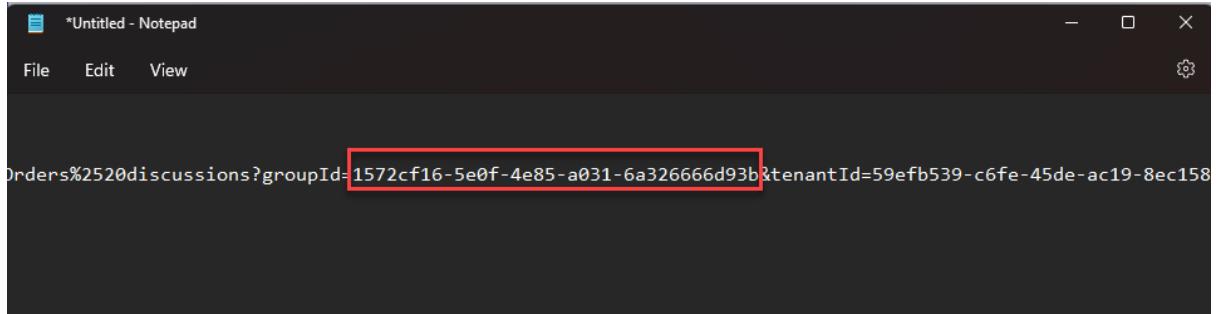
83. Create a Microsoft Teams with 1 channel called PPA_Orders discussions:



84. Get the value from Get link to channel:

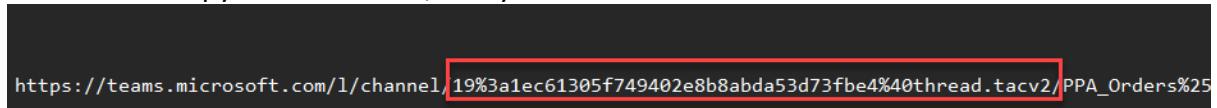


85. In the value that you copied, select the groupid value:



```
*Untitled - Notepad
File Edit View
Orders%2520discussions?groupId=1572cf16-5e0f-4e85-a031-6a326666d93b&tenantId=59efb539-c6fe-45de-ac19-8ec158
```

86. Next copy the channel id; in my case it is:



https://teams.microsoft.com/l/channel/19%3a1ec61305f749402e8b8abda53d73fbe4%40thread.tacv2/PPA_Orders%2520discussions

87. You now need to associate the groupid and the channelid with the Case Definition.

Go to the list BPM Case Configuration, select the PPA_ORDER Case Type and paste the corresponding values:

Case Type
PPA_ORDER

Security Group
PPA_ORDER_GROUP

Security Group Id
Enter value here

SecurityLevel
veryhigh

TeamID
1572cf16-5e0f-4e85-a031-6a326666d93b

TeamChannelID
19%3a1ec61305f749402e8b8abda53d73fbe4%40thread.tacv2

RequestListGuid
b0e49c00-6657-4e83-b277-9d20502785d3

88. If you submit a new order, you will see a new conversation in the channel:

SL

serge Luca 3:26 PM



A new request PPA_ORDER has been submitted

Req-2022-03-27 T 15:08:39.8163363

On behalf of: sergeLuca@doctorflow03.onmicrosoft.com
Order for sergeLuca

[View the request](#)

[See less](#)

[Reply](#)

89. If you click the link [View the request](#), you will see the request details:

New Order

Power Platform Associates

Product: Iiyama screen

Amount: 400

Account: serge

Contact: serge luca

Contact e-mail: sergeluca@shareql.com

On Behalf of: sergeLuca@doctorflow03.onmicrosoft.com

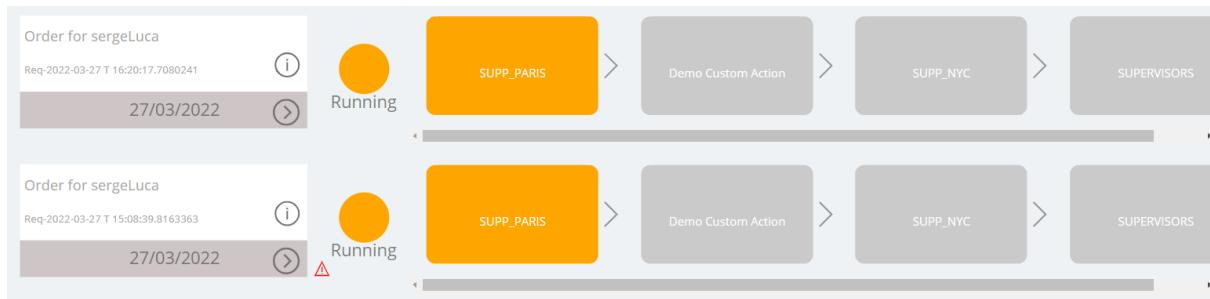
Submitter: sergeLuca@doctorflow03.onmicrosoft.com

Save (Draft) Submit to approval

PART 4. Batch approval

If you are member of a role, and if several Cases are waiting for your role to approve, you can approve in batch.

To illustrate this feature, look at the following waiting workflows:



They are all waiting for the role SUPP_PARIS to react.

90. Click this view to switch to the Batch react mode:

91. Select the SUPP_PARIS role, to filter only the workflows that are waiting for this role to react:

Request Id	Type	Requester	Current status	Workflow
Req-2022-03-27 T 15:08:39.8163363	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	● Waiting	SUPP_PARIS > Demo Custom Action > SUPP_NYC > SUPERVISORS
Req-2022-03-27 T 16:20:17.7080241	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	● Being worked	SUPP_PARIS > Demo Custom Action > SUPP_NYC > SUPERVISORS

92. Since you are in this role, you will see the checkbox for selecting the workflows you want to act on:

Select your role: ORDER_SUPP_PARIS

Waiting requests

0 requests selected

Request Id	Type	Requester	Current status	Workflow
Req-2022-03-27 T 15:08:39.8163363	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	● ● ● ● ●	● >
Req-2022-03-27 T 16:20:17.7080241	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	● ● ● ● ●	● >

SUPP_PARIS > Demo Custom Action > SUPP_NYC > SUPERVISORS >

93. Select them all:

Select your role: ORDER_SUPP_PARIS

Waiting requests

2 requests selected

Approve	Request Id	Type	Requester	Current status	Workflow
<input checked="" type="checkbox"/>	Req-2022-03-27 T 15:08:39.8163363	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	● ● ● ● ●	● >
<input checked="" type="checkbox"/>	Req-2022-03-27 T 16:20:17.7080241	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	● ● ● ● ●	● >

94. And click Approve. You will see a warning message:

Select your role: ORDER_SUPP_PARIS

Waiting requests

2 requests selected

Approve	Request Id	Type	Requester	Current status	Workflow
<input checked="" type="checkbox"/>	Req-2022-03-27 T 15:08:39.8163363	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	● ● ● ● ●	● >
<input checked="" type="checkbox"/>	Req-2022-03-27 T 16:20:17.7080241	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	● ● ● ● ●	● >

Validation

Email notifications will be sent out to all selected Requests with the Approved status

I confirm

95. Click I confirm, and a long running transaction will start. It can take several minutes to complete.

96. If you go back to the “normal” view of the workflow center, you will see that these workflows have moved to another step.

PART 5. The Pulse BPM Toolkit Monitoring application

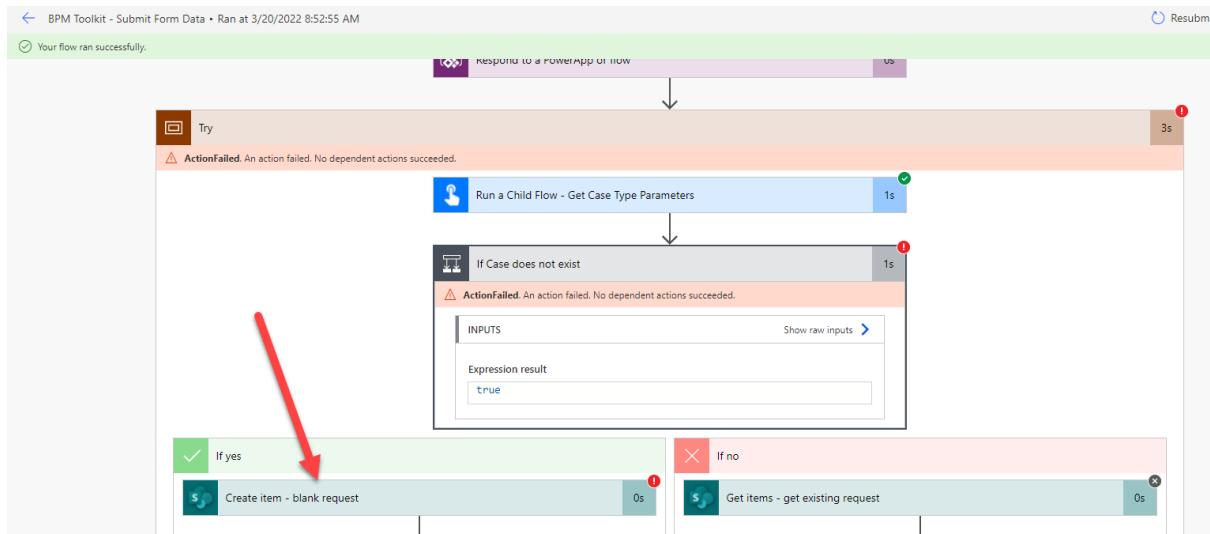
It is an application that requires Power Platform admin privilege. This application checks every hour that every flow in the environment is activated and displays the list of flows that went wrong by Request Id.

Example here, when the user submitted an order, something went wrong with the flow BPM Toolkit – Submit Form Data.

The screenshot shows a web-based monitoring application titled "Pulse - BPM Toolkit Monitoring". At the top, there's a logo for "Power Platform Associates" and a green circular status indicator with the text "All services are running fine" and "Checked at 2:45 PM". To the right, there's a text input field labeled "Request Id:" with a placeholder "[REDACTED]". Below the header is a table with four columns: "Date/Time", "Request", "Flow", and "Flow run/Message". A single row is visible, showing data from March 20, 2022, at 08:52. The "Request" column shows "BPM Toolkit - Submit Form Data". The "Flow" column shows the URL <https://emea.flow.microsoft.com/manage/environments/09e6ebe4-92ab-4048-ac90-2e7ce2170c63/flows/9a26d9e1-16be-edc9-892b-592ec14b3cc5/runs/08585538441098743369600677423CU170>.

Date/Time	Request	Flow	Flow run/Message
20/03/2022 08:52	BPM Toolkit - Submit Form Data		https://emea.flow.microsoft.com/manage/environments/09e6ebe4-92ab-4048-ac90-2e7ce2170c63/flows/9a26d9e1-16be-edc9-892b-592ec14b3cc5/runs/08585538441098743369600677423CU170

If you are the owner or co-owner of the flow, you can directly debug it:



Most BPM Toolkit flows have an error handling mechanism that store details errors in the BPM Toolkit Error Log list.

PART 6. The BPM Toolkit Archiving Module

This application manages the archiving and removal of the cases. Indeed, when you defined a case in the list BPM Case Configuration, you also specified 3 for the column **ArchiveAfterDays** and 10 in **PurgeArchiveAfterDays**. This means that if the case is completed, the system will automatically archive it and 10 days after it will remove it from the archive. If you don't provide any value, nothing will happen.

Let's go to the Workflow Center, select the case you created in the Workflow Panel, skip the step NYC and accept when SUPERVISORS is orange; this will complete your workflow:



When a request is archived, it will be visible in the BPM Toolkit Archiving Module:



BPM Toolkit Archiving Module

Search items

Req-2022-03-20 T 09:16:41.3401447

Archiving date: [Purge date:](#)

28-03-2022 07-04-2022

Request submitted by:

sergeLuca@doctorflow03.onmicrosoft.com

On Behalf of:

sergeLuca@doctorflow03.onmicrosoft.com

Request type:

PPA_ORDER

Started date: [Ended date:](#)

20-03-2022 24-03-2022

[See details](#)

[See lifecycle](#)

Click on see details and you will see the business data in JSON format:



BPM Toolkit Archiving Module



Search items

Req-2022-03-20 T 09:16:41.3401447

Archiving date: 28-03-2022 Purge date: 07-04-2022

Request submitted by:

sergeLuca@doctorflow03.onmicrosoft.com

On Behalf of:

sergeLuca@doctorflow03.onmicrosoft.com

Request type:

PPA_ORDER

Started date: 20-03-2022 Ended date: 24-03-2022

[See details](#)

[See lifecycle](#)

< Req-2022-03-20 T 09:16:41.3401447

sergeLuca@doctorflow03.onmicrosoft.com

On Behalf Of

sergeLuca@doctorflow03.onmicrosoft.com

CaseID

Req-2022-03-20 T 09:16:41.3401447

Case Category

PPA_ORDER

TypeOfrequest

PPA_ORDER

CaseActors

RequestData_json

```
{"@odata.etag": "\"5\"", "ItemInternalId": "2", "ID": 2, "Product": "Surface Laptop", "Amount": "1200", "Account": "serge", "Contact": "serge", "Submitter": "sergeLuca@doctorflow03.onmicrosoft.com", "OnBehalfOf": "sergeLuca@doctorflow03.onmicrosoft.com", "CaseID": "Req-2022-03-20 T 09:16:41.3401447", "CaseSubmissionStatus": "FINAL", "RequestType": "PPA_ORDER", "ContactEmail": "sergeluca@shareql.com", "Modified": "2022-03-27T09:27:18Z", "Created": "2022-03-20T08:16:35Z", "Author": ""}
```

If you click See lifecycle, you will see the whole request lifecycle:



Req-2022-03-20 T 09:16:41.3401447

25-03-2022 (09:10)

Task executed by:

sergeLuca@doctorflow03.onmicrosoft
.com

Step: Status:

1 Positive

Actor:

user1@doctorflow03.onmicrosoft.com

Step started date:

25-03-2022 (09:10)

Step ended date:

25-03-2022 (13:19)

Task executed by:

user1@doctorflow03.onmicrosoft.com

Step: Status:

2 Skipped

Actor:

ORDER_SUPP_NYC

Step started date:

25-03-2022 (13:19)

Step ended date:

Task executed by:

sergeLuca@doctorflow03.onmicrosoft

You can also see the purge requests:

The screenshot shows a user interface for the BPM Toolkit Archiving Module. At the top, there is a blue header bar with several icons: a circular arrow, a double arrow, a database icon, and a trash can icon, which is highlighted with a red box. To the right of these icons, the text "BPM Toolkit" and "Archiving Module" is displayed. Below the header is a search bar with the placeholder text "Search items".

Req-2022-03-20 T 09:16:41.3401447

Archiving date: 28-03-2022 **Purge date:** 07-04-2022

Request submitted by:
sergeLuca@doctorflow03.onmicrosoft.com

On Behalf of:
sergeLuca@doctorflow03.onmicrosoft.com

Request type:
PPA_ORDER

Started date: 20-03-2022 **Ended date:** 24-03-2022

At the bottom of the main content area, there are two buttons: "See details" and "See lifecycle".

You can manually trigger the archiving system (even though it is scheduled to trigger every day):



Req-2022-03-20 T 09:16:41.3401447

Archiving date: Purge date:

28-03-2022 07-04-2022

Request submitted by:

sergeLuca@doctorflow03.onmicrosoft.com

On Behalf of:

sergeLuca@doctorflow03.onmicrosoft.com

Request type:

PPA_ORDER

Started date: Ended date:

20-03-2022 24-03-2022

[See details](#)

[See lifecycle](#)