

BPI Challenge Webinar: Summary Q&A

Question 1: “What is the best way to discover the whole process including interactions, incidents, and change management. Should I connect the cases through the Configuration Item (CI)?”

Martin: Correct, that’s the best way, don’t forget to check the difference between an ‘Affected CI’ and a ‘Caused by CI’ in the Quick Reference Guide.

Question 2: “According to which criteria will the challenge submissions be judged by the jury?”

Boudewijn: The assessment of the submissions will be done according to three criteria: 1) completeness of the analysis, 2) presentation of the results and 3) originality.

For completeness of the analysis, the main question is whether the report shows a full analysis starting from one or more questions in the business context, followed by a technical analysis of which the results are translated back into the business context again. Of course, you are allowed to focus on the questions posed by Rabobank, but feel free to define your own! The most important part is the link between the business and the technical analysis on the data.

For the presentation of the results, we look at the structure of the report, the level of English, the suitability of the report for business managers (i.e. not in-depth technical specialists) and the repeatability of the study on a similar dataset.

Finally, for originality, we are looking for new and exciting insights obtained, for example through the non-standard use of tools and techniques.

Question 3: “What were the criteria for pulling the data found in the BPIC dataset? (i.e., what were the WHERE clauses used to define the time window, etc. for each table? By closed time, opened time, handling team, or other?)”

Martin: The where clause used is based on Closed Time, which had to be between October 1st 2013 and March 31st 2014.

Something to be aware of if you’re using the Incident Activity dataset:
The case ID is the Incidents ID, an incident ID will be related to several activities. There will be Incidents which are closed just after October 1st 2013, that will not have an activity of type ‘Open’, the same goes for Incidents opened just prior to

March 31st 2014, which will most likely not have an activity of type 'Closed'. This is where you will have incomplete cases.

Question 4: "What is the rationale for using "average number of steps to resolution" as a performance metric for project managers?"

Martin: This question is related to sub-questions 3, which contains the challenge to investigate if the number of Calls, Incidents or Average number of steps (Activities) to resolve an Incident is lower after implementation of a change, in respect to the period prior to the implementation of that change. If so, we assume that the stability of the ICT Service is increased as an effect of implementing the change. The challenge is to find any prove of this assumption.

Question 5: "How are Change actual start/end timestamps recorded? Are they system-driven or input manually? What does it mean if there are planned start/end timestamps, but no actuals?"

Martin: The 'Planned start' and 'Planned end' of a change is manual input and relevant for planning changes and replanning if too many changes are planned in the same period of time. The 'Actual start' and 'Actual end' of the change is also manual input and represents the actual time the Assignee was implementing the change. The 'Open time' and 'Close time' are system-driven.

For this challenge, the 'Actual start' and 'Actual end' of the change record is most relevance to discover a possible correlation with Incidents and Interactions raised at the same time.

Question 6: "Which data are entered manually and which are automatically synchronized/entered in the service management tool? Is there any form of automatic synchronization/control system between records?"

Martin: The Incident Activity data is a system logging of activities to resolve the Incident, there's no manual input to Activity records. The rest of the ata is manually entered, including relations between records, except for the 'Open Time' and 'Close Time' of records, which are automatically created in the Service Management tool.

Question 7: "Is there a mechanism for automated Incident detection? Is the Incident resolved timestamp captured automatically or input manually?"

Martin: There is a mechanism in place for automatically detecting incidents or events, but I took those records out of the data sets because the most relevant records for this challenge are tickets which are related to manual activities.

Question 8: “Why are there so few “Resolved” incident activities while most incidents are resolved?”

Martin: Basically when an operator has resolved an Incident, he or she can change the status of the Incident to ‘Resolved’, this will be logged in an Incident Activity record of type ‘Resolved’, the Incident record remains open to check with the customer if the service disruption is really solved, before closing the Incident. More often, the operator will immediately close the Incident after resolving the service disruption, the customer will receive an email of this action, the timestamp for ‘Resolved Time’ will be set automatically and will be, within seconds, equal to the ‘Close Time’. In this case the Incident Activity of type ‘Resolved’ is not created.

Question 9: “Can you tell something more about steady state?”

Martin: Prior to implementing a change you will see an average number of closed Interactions and/or Incidents for a particular Configuration Item or Service Component. This is the steady state prior to the change, which can be compared to average number of closed Interactions and/or Incidents after the change. Most of the times, the first few days after implementing the change there is a peak in the volume of closed Interactions/Incidents. For a good comparison with the situation prior to the change it’s relevant to investigate when the peak is over, to analyse if Interactions/Incidents occur more or less after change implementation. This will give an indication of the quality of change implementation.

Question 10: “What causes an Incident to be explicitly linked to a Change? Why are Interactions not explicitly linked to Changes?”

Martin: That’s our procedure within Rabobank. Incidents will be related to a Change record when there is proof that they are caused by the change implementation. An Interaction can be promoted to an Incident, but we will never create a Change from an Interaction, that’s just part of the procedure we agreed on.

Question 11: “How is the impact on the Service Desk (SD) and/or IT Operations (ITO) measured? Only by the number of closed interactions and number of closed incidents or are other measures used?”

Martin: Yes, the impact on the Service Desk is simply measured by the volume of closed Interactions over time. The impact on IT Operations can be measured also in the volume of closed Incidents, but there’s an extra insight to that, because you can also look at the Incident Activities for an extra insight in how the complexity of the particular Incidents is. So for IT Operations we have two measures, if the complexity of the incidents increases/decreases (measure: number of Incident

Activities), the impact is an increase/decrease of workload for IT operations. The volume of closed Incidents is of course the other measure.

Question 12: “How you get this # Related Incidents in Change records?”

Martin: It’s an attribute of the Change record, which represents the count of Incidents manually related to the Change record, because there was proof the particular Incidents were caused by the change implementation. It’s an indication how good or bad the implementation of that change was. Note: It’s a correlation done by an operator and not a system-driven metric.

Question 13: “Does the term students also include PhD students?”

Boudewijn: Yes, it does.

Question 14: “How is handle time calculated?”

Martin: For measuring ‘Handle-time’ the Service Management tool contains clocks which starts counting when an operator is actually opening the tickets and doing things to solve the service disruption.

Question 15: “What are the product managers’ responsibilities? Do the same product managers oversee Change implementation and ITO Incident resolution for a particular Service Component or set of Service Components?”

Martin: That’s correct. A Product Manager, for instance responsible for UNIX server capacity is responsible for managing the flow of interactions, incidents, changes caused by UNIX servers. If a specific Incident on UNIX servers is reoccurring more often and there’s a workaround available for the customer, it’s the Product Manager’s responsibility to inform Service Desk agents about this work around and create a Knowledge Document containing the instructions for this workaround.

Question 16: “Could you explain how the workload of Service Desk and IT operation is related to the volume of closed interactions and incidents?”

Martin: See Question 11.

Question 17: “The relation between change and incident records is made by using the affected CI?”

Martin: Correct.

Question 18: “Do you have different sets of phases for different change types in Service Manager, or all the change types are using the same phase schema?”

Martin: Change types have different schemas, this information is registered in change models, which are sort of a template for implementing a change. There are major business changes with a lot of specific tasks to be done and a lot of communication steps in the change plan. There are also standard changes, which are simple changes that have quite a simple template with just a few tasks and only communication with the change requester.

Question 19: “What are the scoring metrics for impact, urgency, and priority of an Incident/Interaction? How are different priority/urgency/impact Incidents handled differently? (i.e., what would require immediate resolution outside of normal operating hours?)”

Martin: There is a decision tree for the Service Desk agent to be used during the intake of an Interaction. With this decision tree the Service Desk agents can determine what the impact and the urgency is. Impact is low if it concerns just one colleague within Rabobank and high when it concerns complete departments or even Rabobank customers.

Urgency is an indication of the colleague calling in the service disruption. The Service Desk agent uses the Impact scoring and Urgency indication in the decision tree, which leads into a Priority for the addressed Assignment Group to resolve the Incident.

Question 20: “Are teams/assignment groups assigned to support specific Service Components or Configuration Items? How are new cases assigned?”

Martin: Yes, Assignment Groups are responsible for Interactions/Incidents/Changes related to Configuration Items related to specific Service Components.

New cases are assigned, using the CMDB to determine the Assignment Group responsible for the Affected CI related to an Interaction record.

Question 21: “What determine the assignment to an external vendor?”

Martin: That’s part of the services we’ve set up. Sometimes we have the need for an external party, or a vendor to resolve Incidents. These specific cases are registered in a Knowledge Document (KM-number).

Question 22: “How do you decide what Incidents get linked to Changes?”

Martin: See Question 12.

Question 23: "How does the SD/ITO agent know which KM to use? Do they have any groupings associated with them? How are new KM's created/retired in association with Changes?"

Martin: That's part of the experience of Service Desk agents, it's also possible to search for relevant Knowledge Documents by title in the Service Management tool.

It's the Product Managers responsibility to have Knowledge Documents created or archived and have Service Desk agents instructed how to provide the customer with either a workaround, or otherwise gather as much information possible for an Assignment Group to resolve the Incident as quickly as possible.

Question 24: "Why do the number of related interactions not match the number of explicitly linked interactions? Is this due to the time window of the data pull?"

Martin: It can be related to the time of data pull, but it is more likely that the difference is caused by the fact that relating Interactions to Incidents is done manually. The first relation between an Interaction and an Incident is created automatically when promoting an Interaction to Incident. If there are new Interactions registered concerning the same service disruption (Incident) it's the Service Desk agent who manually relates the new Interaction to the existing Incident.

Suggestion: Look into the time stamps of the different records related to Configuration Item/Service Components, to see if this gives a better correlation than manually.

Question 25: "Is it allowed for a CI to be related to more than one Service Component? The data model says it is not possible, but it exists in the data."

Martin: A Configuration Item can be related to just one Service Component at the time. It is possible within the data itself, that there are certain configuration items that were related to a Service Component and are after a reorganization now related to a different Service Component.

Question 26: "Can we measure impact patterns on Service components or CI?"

Martin: Yes, that's part of the challenge. We're looking for insight in patterns occurring on Configuration Items and sets of Configuration Items which are related to a Service Component.

Question 27: "Can you clarify the relationship between the "incident" and the "incident activity" data files?"

Martin: The Incident file contains the key 'Incident ID' and other attributes from the Incident records. The Incident Activity file also contains the key 'Incident ID' and all the related activities, that's a logging of the steps taken to resolve that particular Incident.

Question 28: "What is the distinction between Assignment and Reassignment, since many are back to back with the same timestamp?"

Martin: When an Interaction is promoted to an Incidents, the first assignment to an Assignment Group creates an Incident Activity of type 'Assignment', every next assignment to a Service Desk agent or a specialist within an Assignment Group is logged as an Incident Activity of type 'Reassignment'. The 'Reassignments' can occur several times, the 'Assignment' just once for every Incident record.

Question 29: "In the interaction dataset sometimes the CI name field (and other fields) is filled with #N/B. How should this be interpreted?"

Martin: It's not entered by the operator.

Question 30: "Does a "Resolved Incident Activity indicate that the Resolved Timestamp in the Incident record has been changed manually?"

Martin: No, it's an indication that the specialist has resolved the Incident, he or she changes the status of the Incident accordingly and leaves the record open awaiting evaluation with the customer. This is logged in an Incident Activity of type 'Resolved'. If evaluation is not necessary, the Incident is closed immediately, the timestamps 'Resolved Time' and 'Close Time' are (within seconds) the same. Closing the Incident is equal to the administrative closure of the record.