

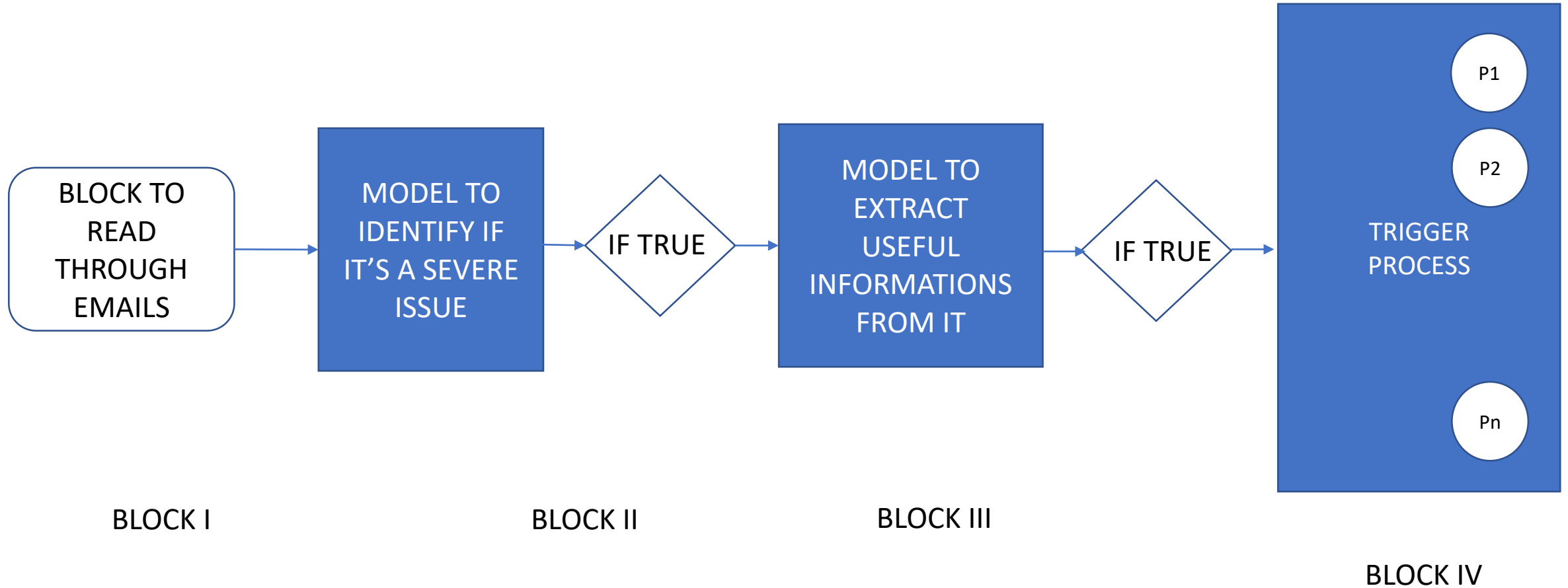
SUPPORT MACHINE

In every software company production support comprises a huge portion of the available resource. And major part of the work manual monitoring. If anything goes wrong they need to analyze the issue, find the root cause and find the fix.

Now the problem is that this job is monotonous. As serious issues occur very rarely most of the monitoring time is wasted. Even after facing a known issue, if it's very old one then hardly anyone remembers and end up doing all the analysis part again.

These jobs are very time consuming and inefficient. Rather if we be able to build a system that does most of these works, the outcome will be more reliable and resources can be used for better purpose.

HIGH LEVEL FLOW CHART



BLOCK I

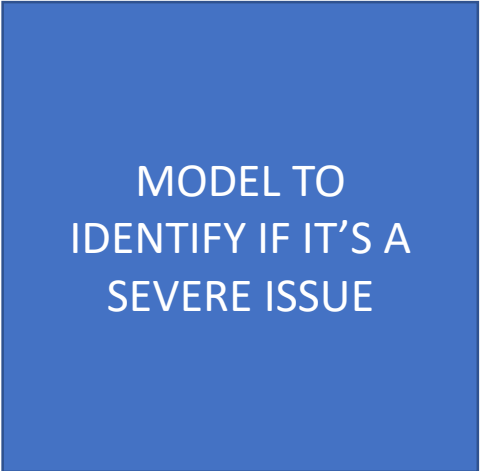
BLOCK TO READ
THROUGH EMAILS

For the time being let's consider that email is our only source of data. This block of code will read through the inbox and get the subject lines of the emails to feed into the model in BLOCK II. We can schedule it in every 2- 5 min to run and read from most recent email to the email last time we started with.

BLOCK II

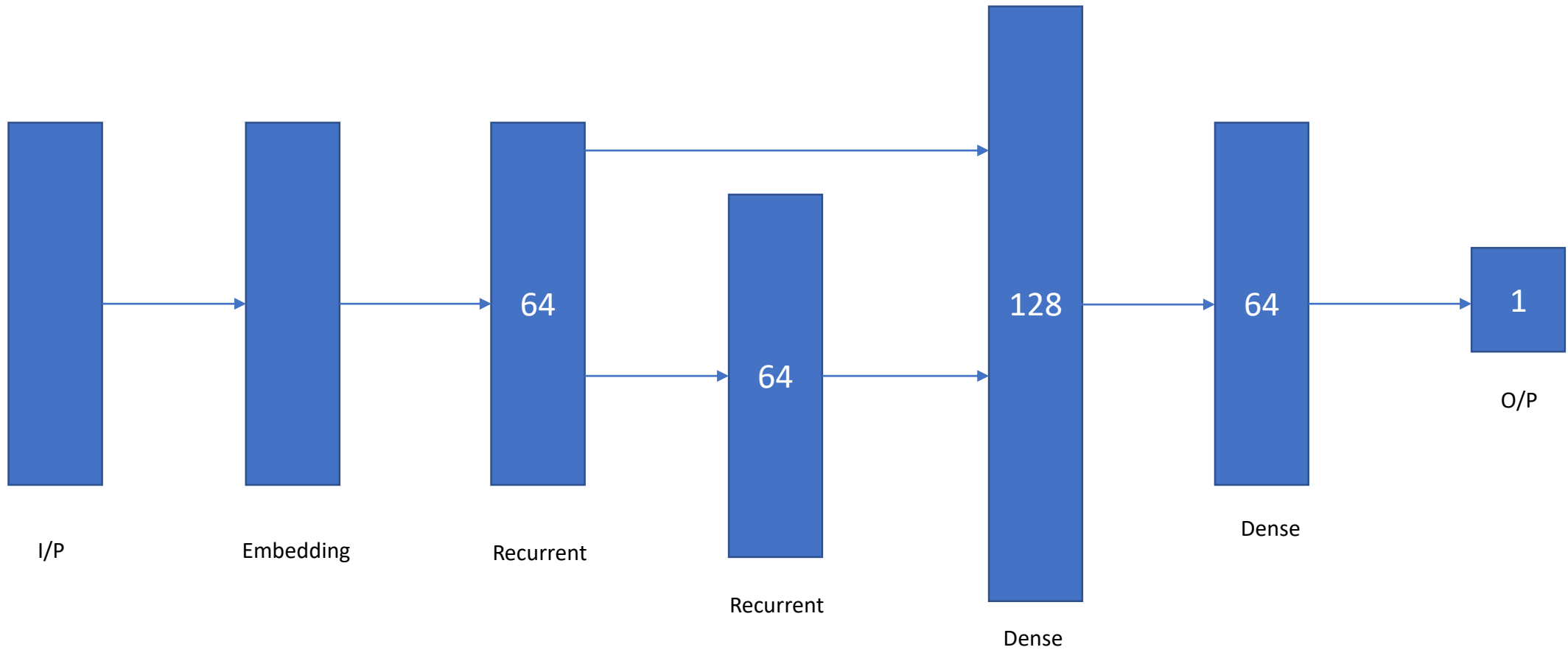
This block takes input from previous block and first embed them. Then those embeddings goes in to the model majorly made RNN units such as simple RNN, GRU and LSTM. In the end through the activation it predicts severity of it.

This model has to be trained using available documentation about severe incidents the team has encountered before. Merging it with all the email can cause heavy bias. So that has to be handled.



MODEL TO
IDENTIFY IF IT'S A
SEVERE ISSUE

BLOCK II ARCHTECTURE



N.B. This architecture is just a basic prototype. Actual architecture needs to be decided after some research and experiment

BLOCK III

MODEL TO EXTRACT
USEFUL
INFORMATIONS
FROM IT

After deciding the severity this model is supposed to extract useful information such as, client name, server name, database name and recurrence score. This model will use a different set of data for training purpose and this is to address entity recognition problem.

BLOCK IV

There are predefined automation processes which are to be triggered based on the recurrence score. If the score is having too much Euclidean distance from any of the existing score then it is a new issue and has to be tackled manually.



TRIGGER
PROCESS