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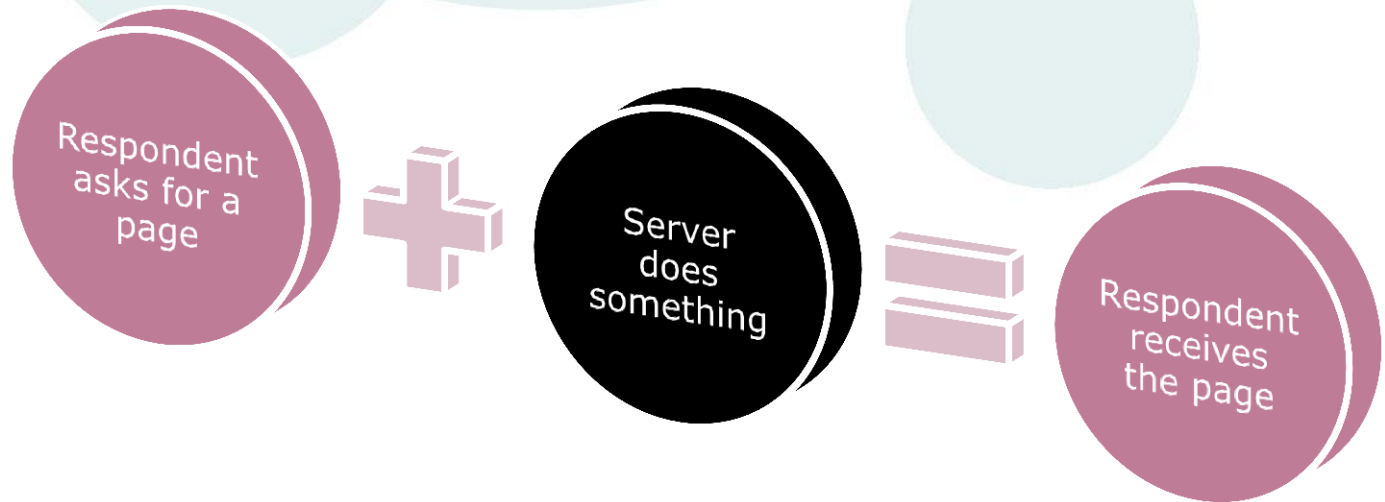
Performance and security enhancements on the Blaise IS standard stylesheet

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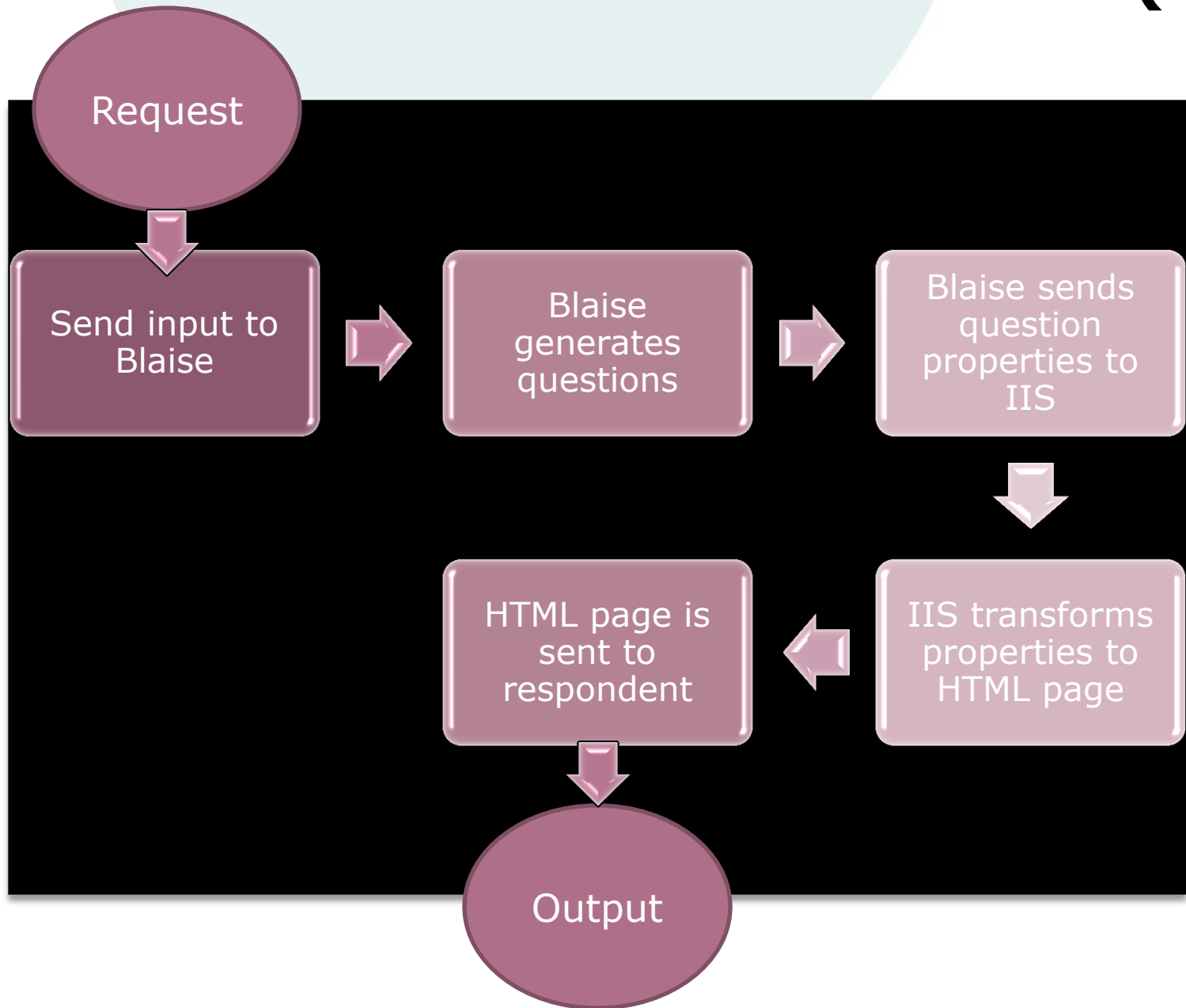


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Blaise IS: How does it work?



Blaise IS: How does it work? (2)





Problems?

In general this works

BUT

In some situations performance can be an issue:

- Many simultaneous respondents who use the system
- *Complicated questionnaires*



Solutions?

The simple solution would be more servers.

We noticed that for one of our questionnaires the number of possible respondents/server is dramatically low

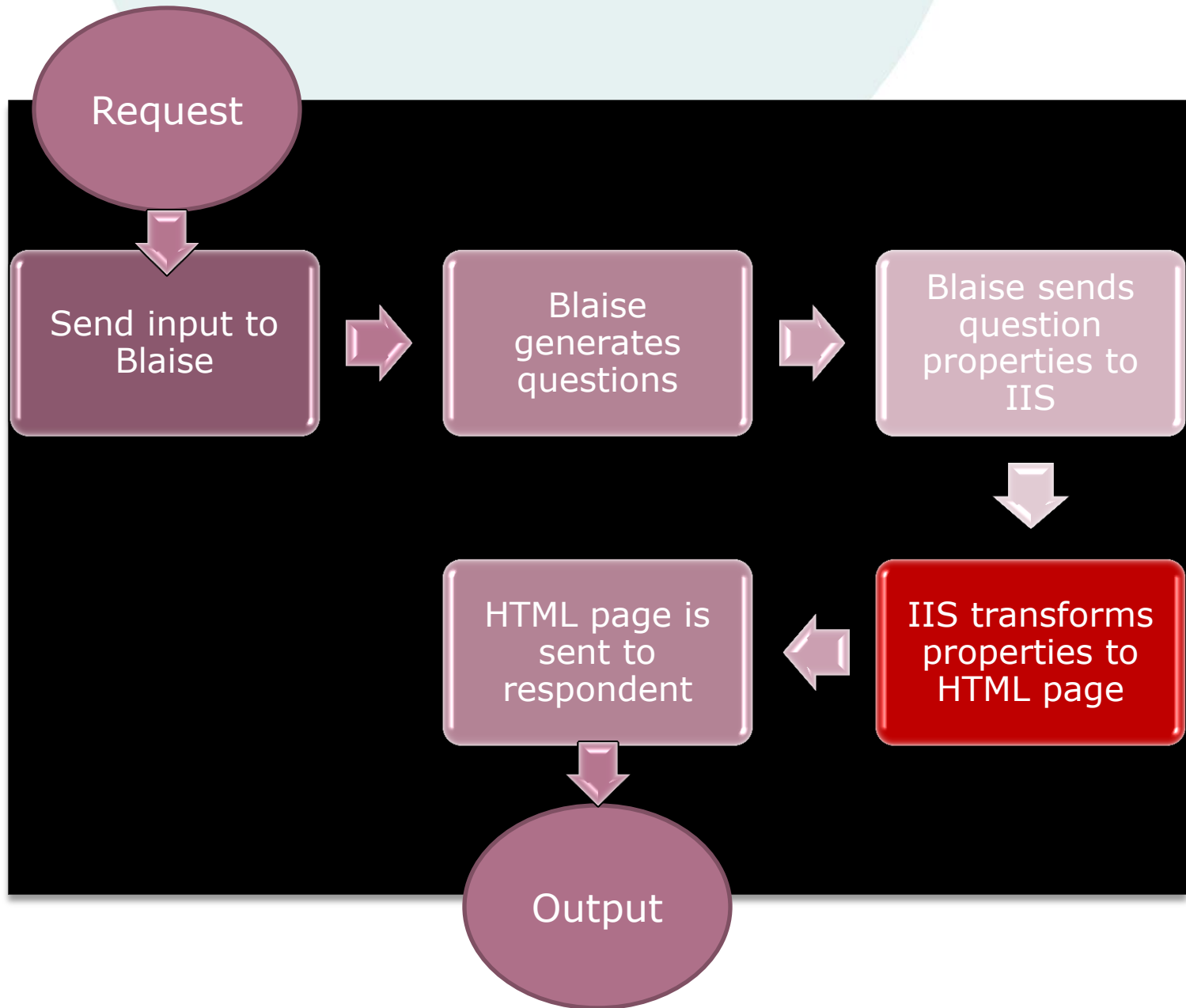
Different solutions?



On the POV-search

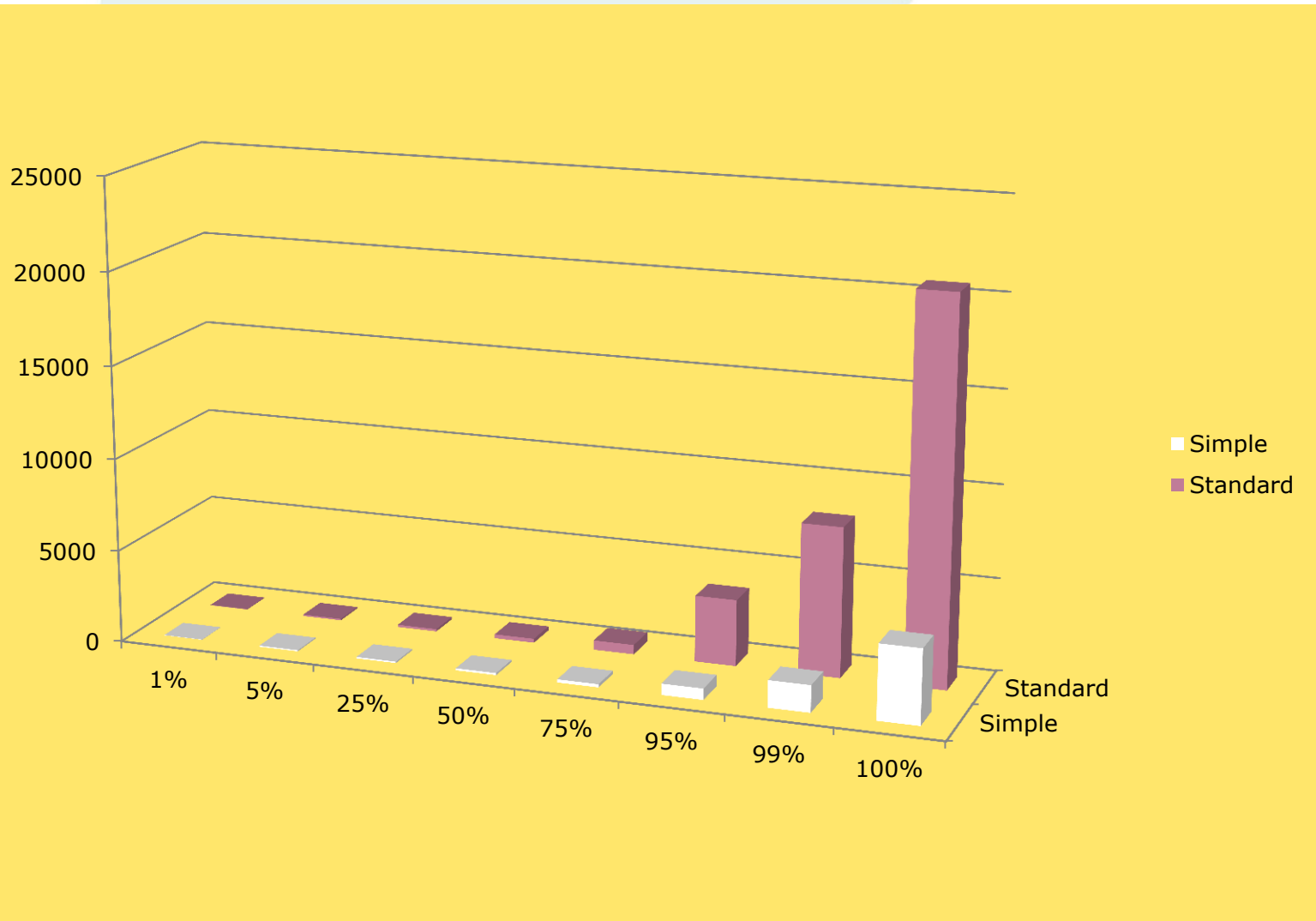
- LISS panel: 8000 individuals
- Every month they get invited to fill in several questionnaires
- The invitations are sent every first Monday of the month at 12pm
- Currently 3 servers are used to host the questionnaires
- No performance problems, except for a longitudinal political values (POV) questionnaire
- POV is a questionnaire with many large tables

Why performance issues?



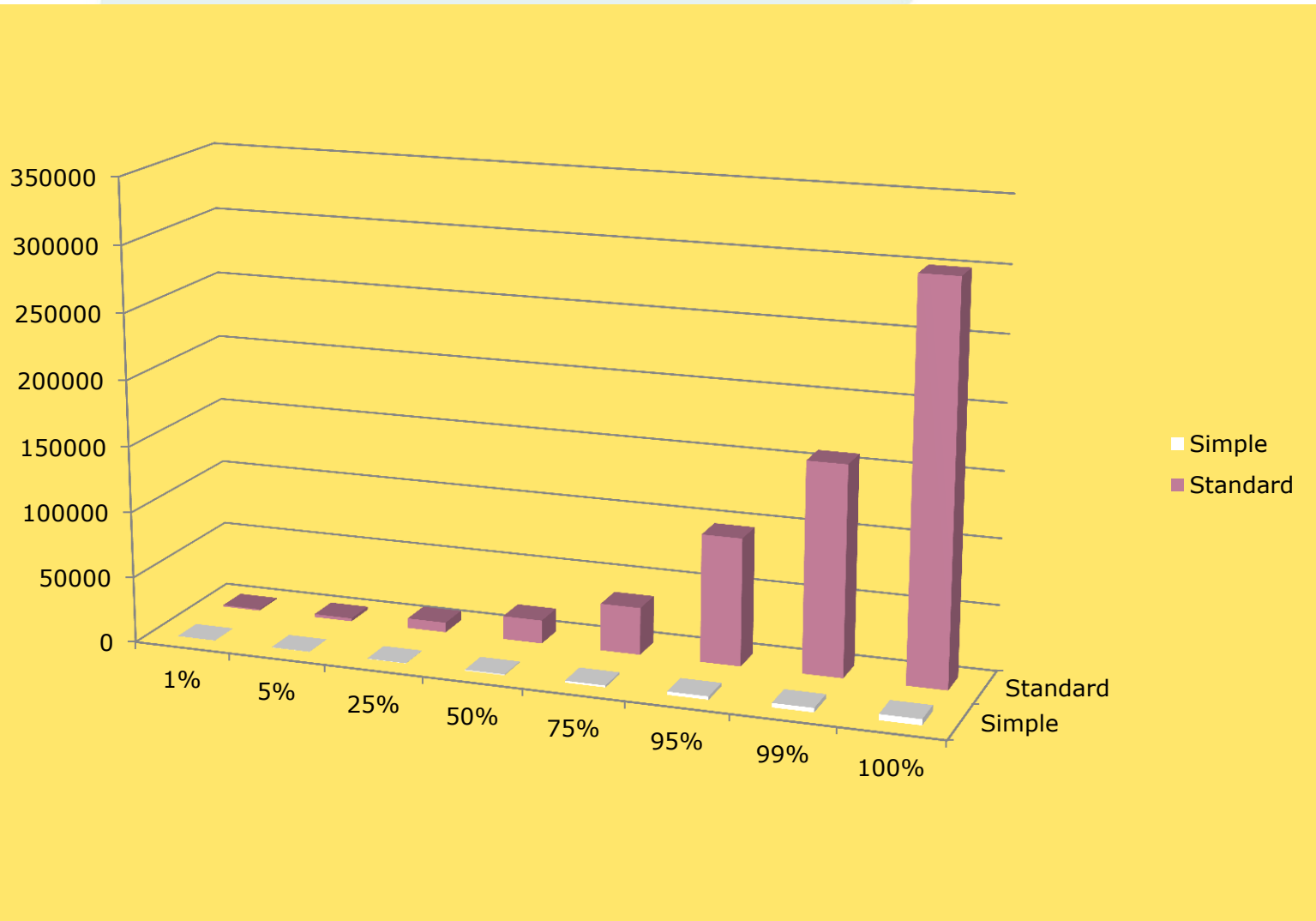


The results – Handle time for 150 simultaneous respondents (ms)



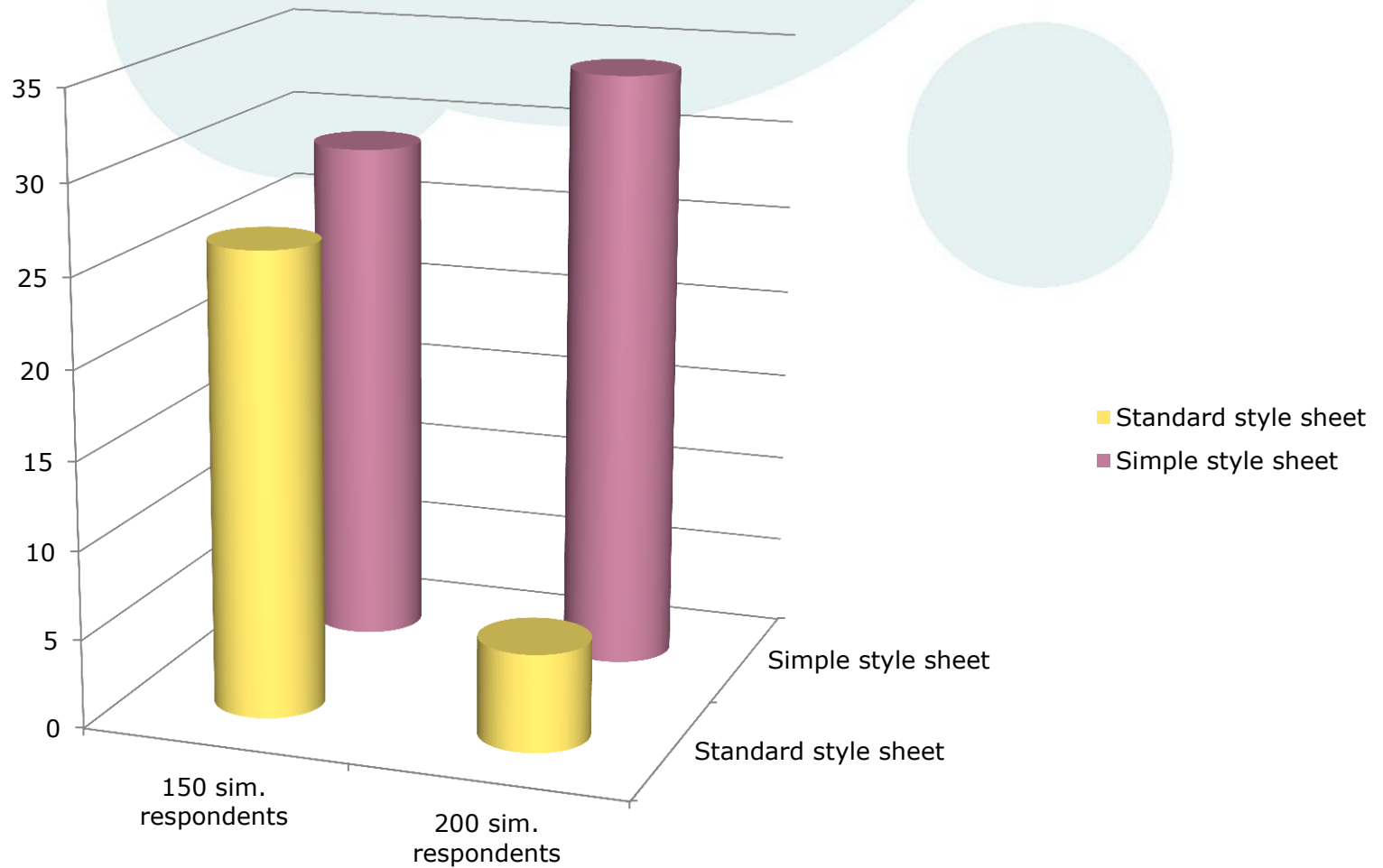


The results – Handle time for 200 simultaneous respondents (ms)





The results - Number of handled requests/second





What can we learn?

If performance is an issue it is worth to rewrite the standard Blaise XSL Transformation files for the specific questionnaire(s)

Security enhancement

Respondents portal
KeyValue=1237

BlaiseIS server

```
<form action="blaiseISserver/biInterviewStarter.asp">  
<input type="hidden" name="KeyValue" value="1237" />  
  
<input type="Submit" value="Start Questionnaire" />  
  
</form>
```

First question

Security enhancement

Respondents portal

KeyValue=1237
HashValue=sha1(
SALT."1237")

BlaiseIS server

Recalculate hash
HashValue=sha1(
SALT.KeyValue)

```
<form action="blaiseISserver/biInterviewStarter.asp">  
<input type="hidden" name="KeyValue" value="1237" />  
<input type="hidden" name="HashValue"  
      value="dd054b0a2f3b8b66f6611910" />  
<input type="Submit" value="Start Questionnaire" />  
  
</form>
```

- First question
- Missing KeyValue
- Incorrect hashvalue



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