Proposal: "Moses server land"
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Basic idea:

it would be nice to have a server version of Moses that allows clients to connect using sockets/TCP connections. The client sends in a text and, after some time, receives the translated version. In an ideal setting, the client could query the supported language pairs from the server and would be able to receive a translation very fast.

Rough sketch of the "Moses server land":

There exist a central Moses server which distributes work onto the cluster.
Next to this one, there exist decoder servers, phrase table servers and language model servers. Each decoder server is capable of translating input sentences - the necessary scores/info is queried from the different phrase table and language model servers. The client would just set the desired language pair and send the input text - without ever having to care about splitting up the input text and distributing it over the cluster computers...

Challenges:

We'd have to find ways to somehow "batch" requests to the phrase table or the language model as sending a TCP request for each single of these lookups will severely degrade performance. Also it might be interesting to think of clever ways to distribute translation requests to the decode servers inside the "translation cluster". Last but not least the network communication will be an area of interesting work.

Milestones:

1. basic server version that encapsulates a complete Moses system
2. dynamically loaded phrase tables/language models
3. export phrase tables/language models to own servers
   -> Moses translation network: decode servers, PT, LM servers
4. automated distribution of translation requests to decode servers