

Context

Context is used in multiple ways both within the NLU stack as well as in the dialogue manager.

Context can include:

- * User history (call/chat logs, actions, preferences etc)
- * User location
- * Collaborative filtering (feature sharing)
- * Account details
- * Device type (web, mobile, voice/text)
- * Dialogue state information

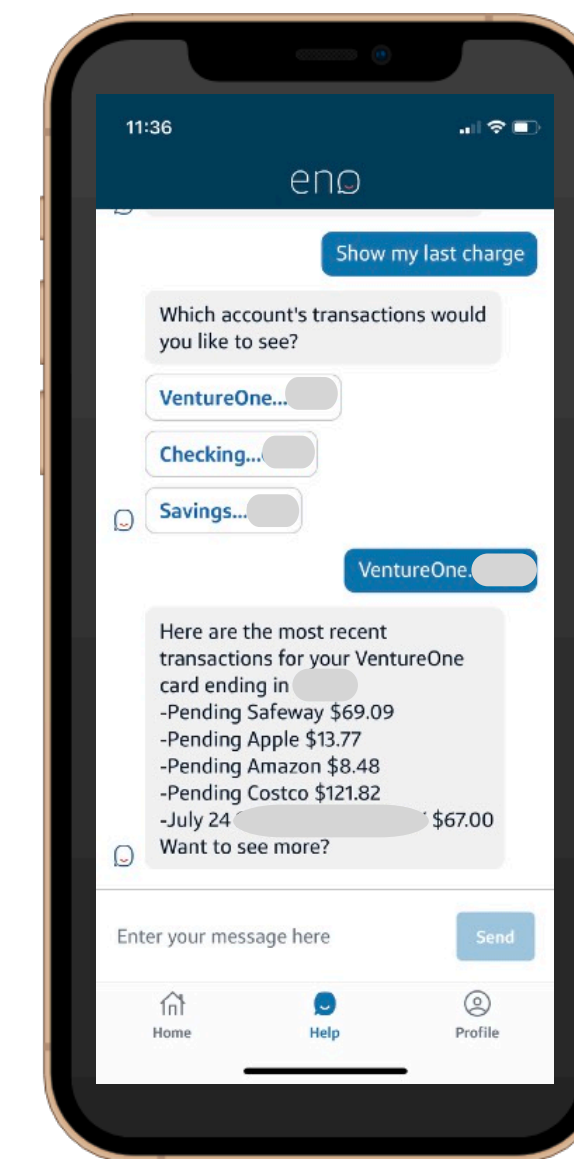
NLU uses this:

- * As conditioning for classification:
 - * domain, intent, entity
- * To filter / rerank similarity scores

Book me a
flight home

Place another
order of ice cream

I'll pay half the
balance



Task based assistant core challenges: Dialogue Management

Robust language sensing

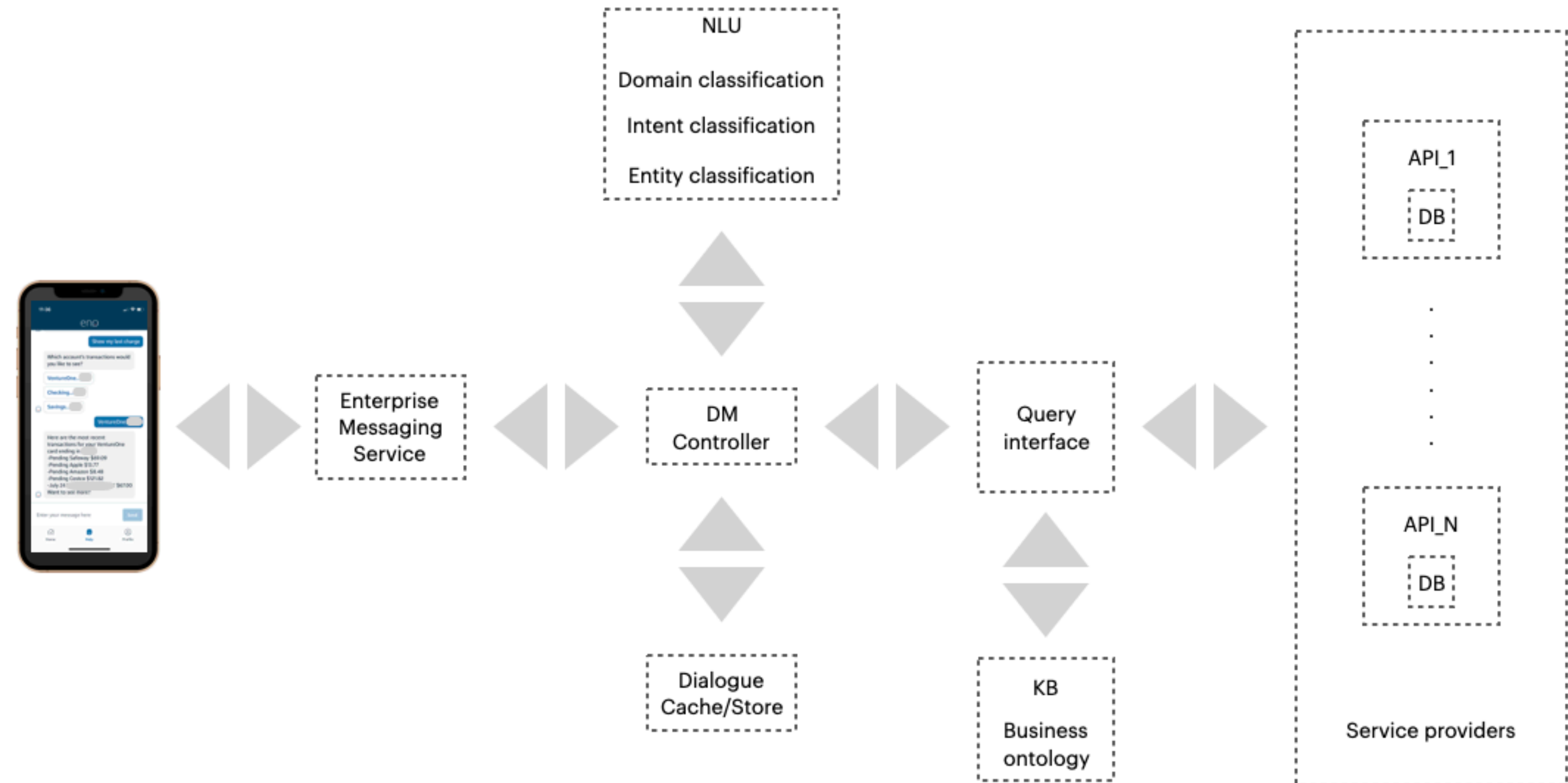
- * Spoken vs typed
- * Slang vs formal
- * Typos & dialects
- * Microphone quality
- * Intent, entity, domain rec.
- * Implicit entities

Dialogue state management

- * **Efficient slot filling**
- * **Multi intent requests**
- * **Contextual awareness**

System scale

- * Multi-domain support
- * 3rd party integrations
- * Performance



Generic dialogue system architecture