

VistA

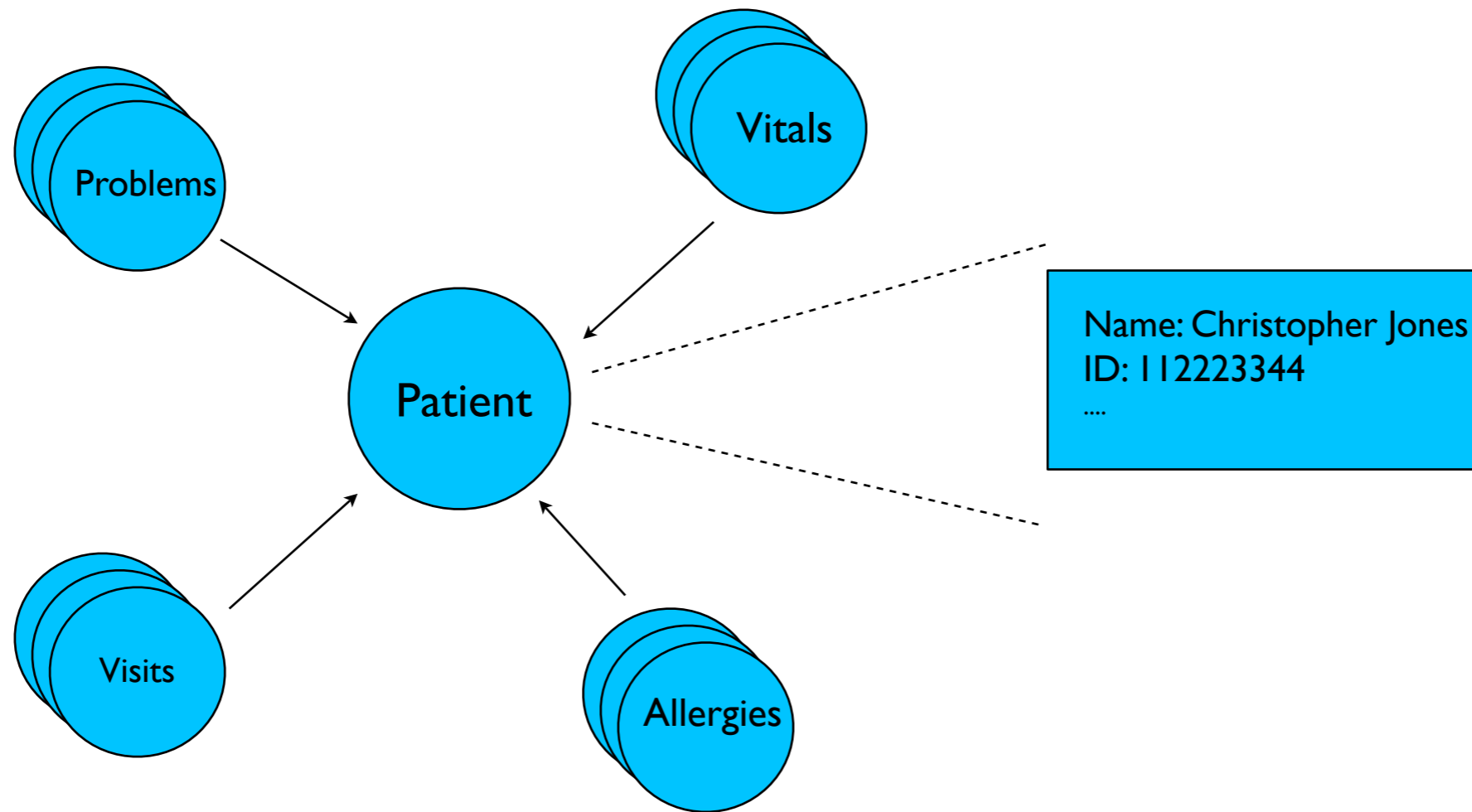
The Linked EHR

Translational Medicine Ontology Call
April 1, 2010

VistA

- “The” EHR
 - 10M+ Patients, federates 200+ facilities, meta-rich, HL7 v2 ... FREE!
- But ...
 - CPRS - Fat Client, Delphi Pascal
 - FileMan - no native remote query/update
 - VA-isms stick: what’s there is there

FileMan == GraphMan



Nodes (with Literals and URLs)
5000+ types, Strongly-typed (down to pointer level)

Make Natural, Not New

- Natural == Now, Future == XML/SOAP, NOT Web of Data
- FMQL: FileMan Query Language
 - SPARQL == FileMan query
 - OWL == FileMan schema definition
 - SPARUL == FileMan update
 - SPARQL RESTful endpoint == FileMan's

FMQL - stages

- End goal clear – rollout “show-me”
- First: Linked Data access (v**0.2**)
 - Max Bang: Select All Of Type, Describe Node, Select All Referrers to Node
 - See all, View “VistA Patient Record”
- Show it: vista.caregraf.org
- Give it: [download](#)

Patient Jones

- Ramble Christopher Jones
 - DESCRIBE <C.J.>
 - SELECT ALL REFERRERS <C.J.>
- Patient Record for Christopher
 - SELECT ALL REFERRERS of TYPE <Vital>
 - DESCRIBE REFERRER <Vital>

FMQL: Linked Internally

```
SELECT ?rate  
WHERE {?s va:rn "11223344" .?v  
va:patient ?s ; va:vitalType va:  
120.51/1 ; va:rate ?rate}
```

- But: World of VistA: in VistA, VistA to VistA
- Two Gaps: Codes, Schema
- But: Solution not adaption/gateway - LINK

The Code Gap

- Link VA codes to Standards
 - [VA:120.51/1](#) == SNOMED:392570002
- datasets.caregraf.org/va
 - Given: RxNORM Drugs has VUIDs
 - Others must be added
- SELECT from VistA in standard codes

The Schema Gap

- VA Ontology: [GMRV Vital Measurement](#)
- Which standard to link to?
- TMO? Open to suggestions.

Conclusion

- VistA - scalable, comprehensive and free
- Semantic Web can make it non-VA usable
- Rollout: each piece “complete”
- Work with HCLS to “fit in” to standards