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# Models of Knowledge Based Authentication (KBA)

Revised February 2004

# Summary

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- Working KBA Definition:
  - » Past
  - » Current
- Generic KBA Model:
  - » Participant Roles
  - » Relationships
  - » Aggregations of Data
  - » Decisions
- Alternative Models:
  - » Commodity Model
  - » Multi-Role Providers
  - » The Pay.gov Model
  - » The Customer Relationship Management (CRM) Model
- Opportunities for Fraud
- Current Measures of Quality
- Lessons Learned

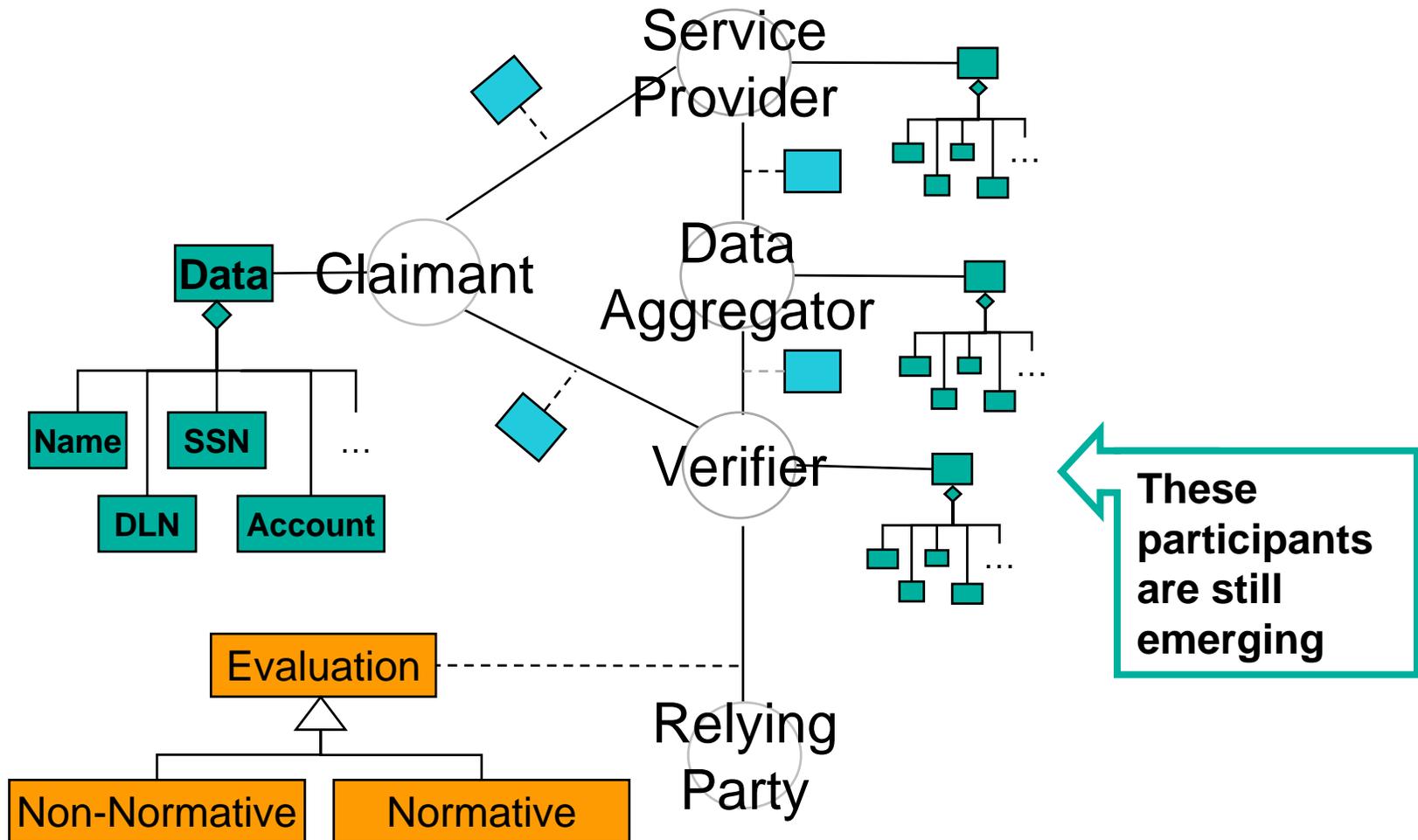
# Working Definition of “KBA”

- Verification based on *information* provided by claimant
- Verification of identity is based on *reference* information associated with a claimant
- Acceptance of claimed identity depends upon satisfactory *consistency* between reference and provided information
- ***No specific prior relationship between claimant and verifier***

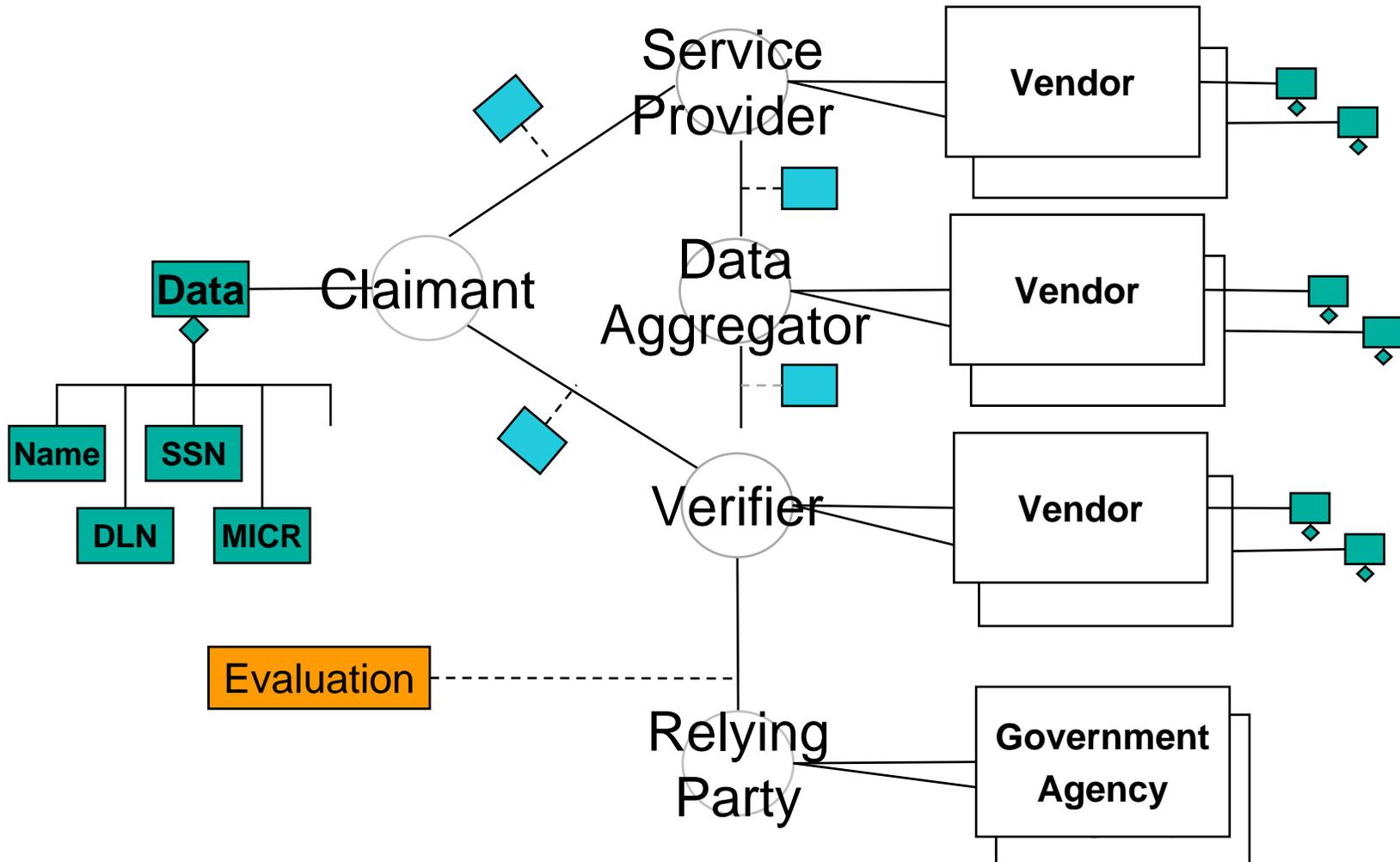
Many details are still being defined – “KBA” is still very much a work in progress.

This is the key difference between past and current use of “KBA”

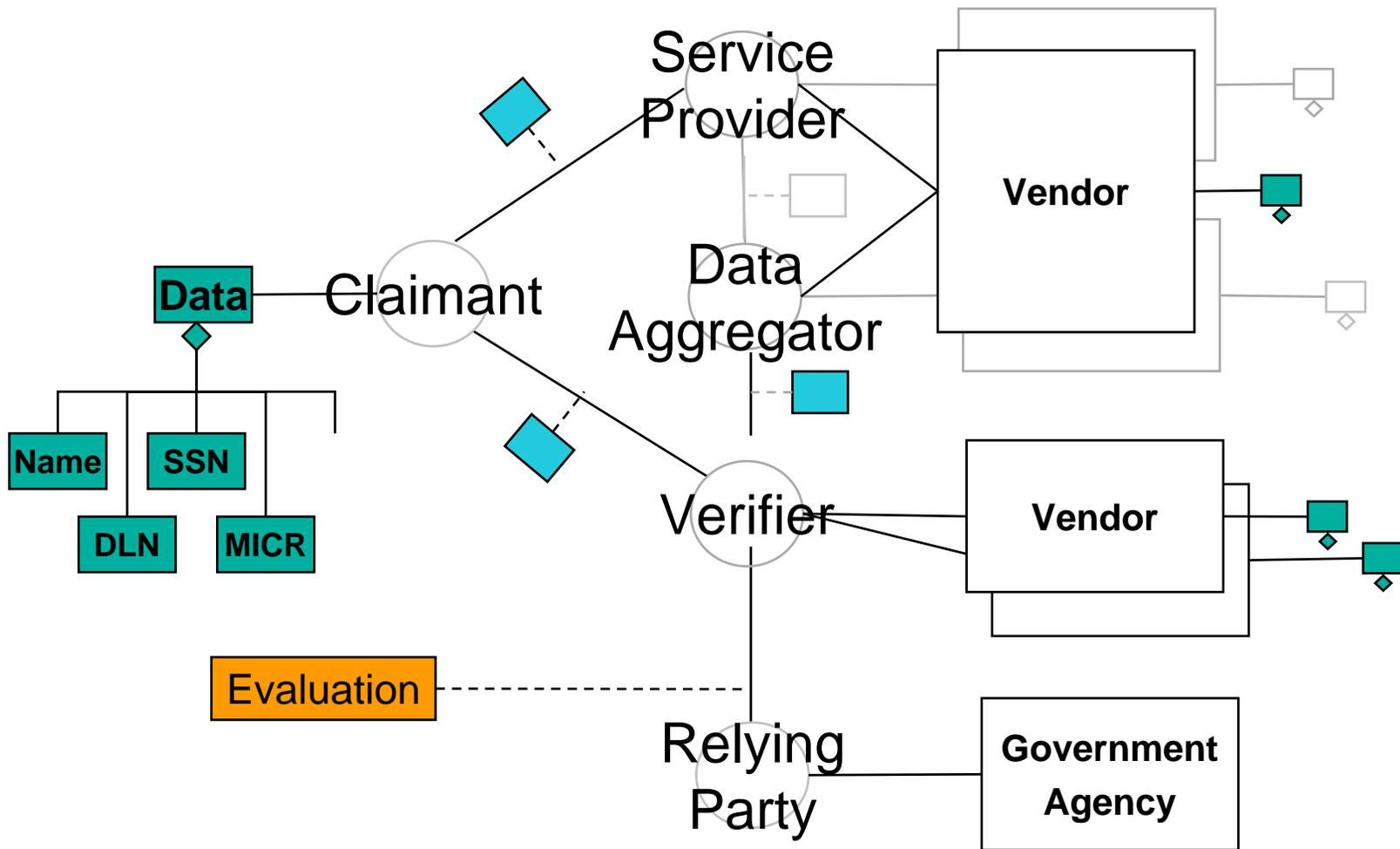
# Generic Model of KBA



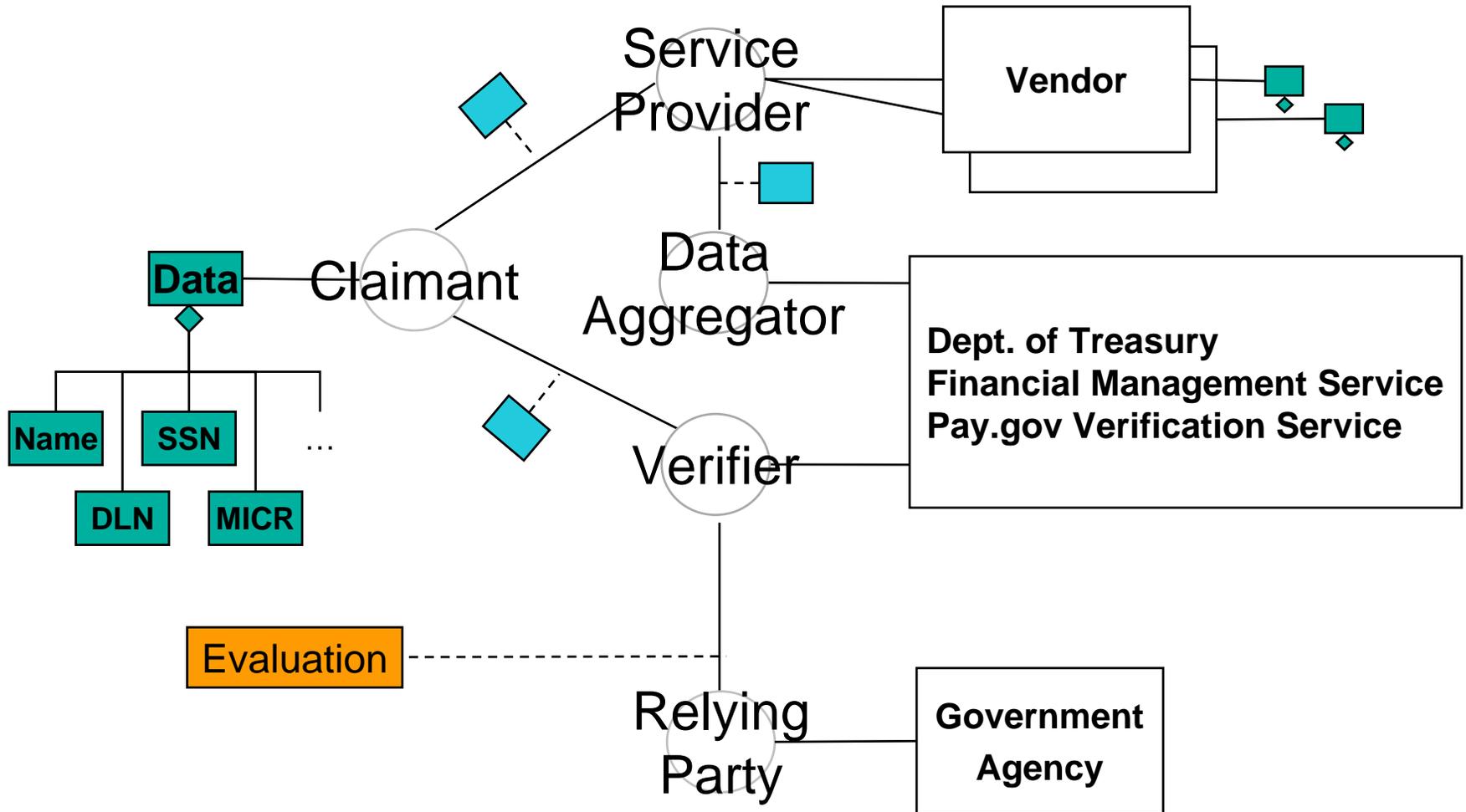
# Commodity Model



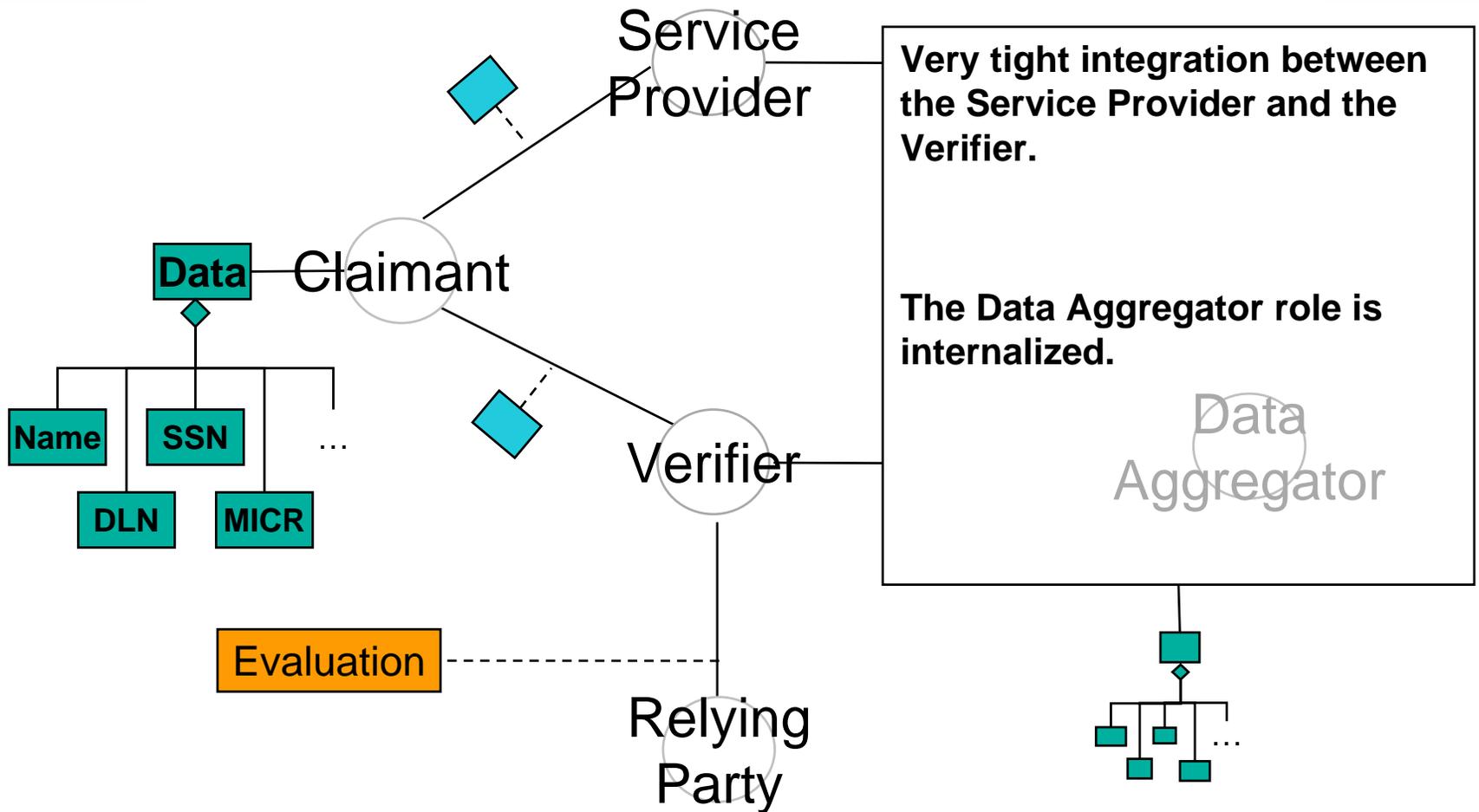
# Multi-Role Providers



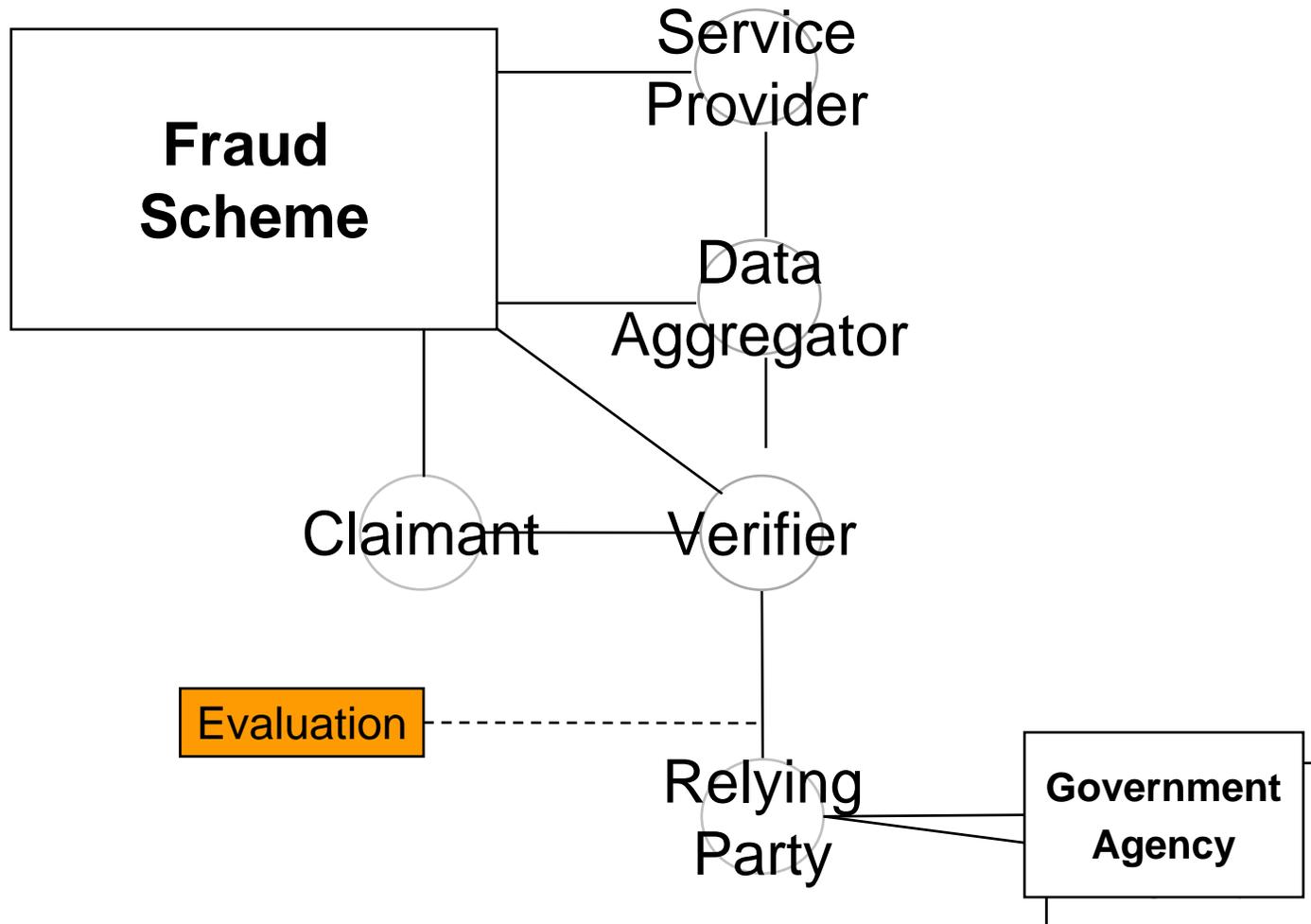
# The Pay.gov Model



# The CRM Model



# Opportunities for Fraud



# Measures of Quality

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- For Aggregators
  - » Cost
  - » Timeliness
  - » Technical integration
  - » Content visibility
  - » Content accuracy
  - » Population coverage

- For Verifiers
  - » Cost
  - » Timeliness
  - » Technical integration
  - » Scoring options
  - » Scoring accuracy

# Lessons Learned

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- The breadth of the demand
  - » Population coverage
  - » Variety of data elements
  - » Decision support alternatives
- The importance of the context
  - » For the customer Claimant
  - » For the agency Relying Party
- Challenges of probabilistic outcomes