

Accountable Systems: Fusion Center Prototype



Spring 2010

About

The Decentralized Information Group explores technical, institutional, and public policy questions necessary to advance the development of global, decentralized information environments.

Agenda

- Challenge of Accountability
- Prototyping Fusion Center information sharing
- Scenarios
 1. 2 parties, 1 document, 1 policy
 2. Policy calls
 1. Another policy (understanding definitions & cross-ontology reasoning)
 2. Another fact (drawing from additional resources)
 3. Pre-processing for subjective judgments
 4. Modeling – substituting parties or policies
 5. Validating – ensuring a hard result
 6. Scaling – modeling the Privacy Act
 1. Adding to the cross-ontology knowledge base
 7. Future possibilities
- Future work
- Technical Notes
- Team

Challenge

Organizations have obligations regarding the collection, use, and sharing of information.

Examples

- Law
 - HIPAA
 - SOX
 - Privacy Act
- Regulation
 - Know Your Customer
 - Suspicious Activity Reporting
- Contract
 - Business partners
 - Vendors
- Policy
 - Corporate
 - Association

Accountability

How should organizations ensure that they meet those obligations?

How should they prove to others that they are meeting those obligations?

The Goal – Accountable Systems

Ability for systems to determine whether each use of data is/was permitted by the relevant rules for the particular data, party, and circumstance and make that decision available to access control, audit, and other technology for real-time enforcement, retrospective reporting, redress, and risk modeling.

System, system on the wall...
Is this fair use after all?



About this Project

- Sponsor: Department of Homeland Security
- Modeling Fusion Centers
 - Information sharing
 - Privacy rules
- Creating a prototype Accountable System

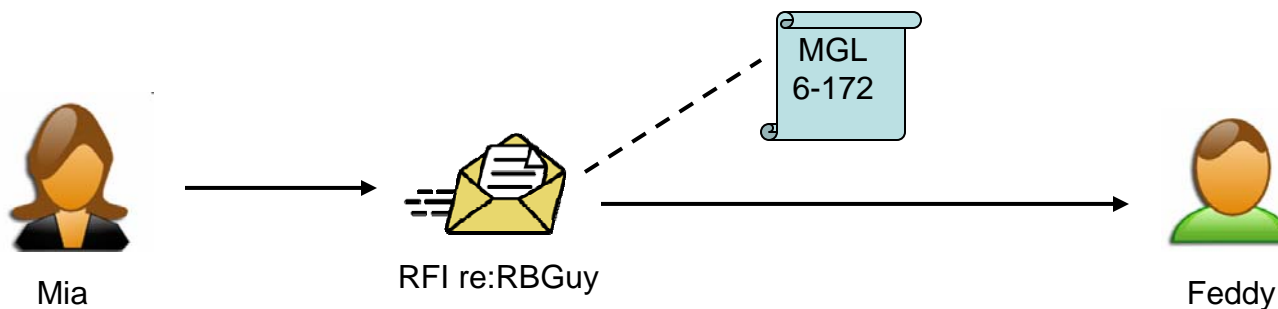
Assumptions

- Web-based
 - All users and files on internet or intranet
- Semantic Web
 - Greater interoperability, reusability, and extensibility
- Security & Authentication
 - Enhancement not replacement
- Enhancing Accountability & Transparency
 - NOT replacing lawyers

Scenarios

- Scenario 1

- Massachusetts analyst (Mia) sends Request for Information (RFI) to Department of Homeland Security agent (Feddy).
- RFI contains criminal history info about a specific person (RBGuy); regulated by Massachusetts General Law 6-172.





Please enter the sender's URL:

Mia.Analysa <mia@msp.mass.gov>



Please enter the data's URL, or select from the files below:

http://dig.csail.mit.edu/2010/DHS-fusion/MA/documents/Fake_MA_

- Fusion
 - Analysa
 - RFI
 - RBGuy
 - RBGuyCore**
 - BBunny
 - ACapone
- Received

Transaction Simulator

Please enter the recipient's URL:

Feddy Agenti <fed@dhs.us.gov>



Please enter a policy's URL:

http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_core

From: [Mia Analysa](mailto:mia@msp.mass.gov) <mia@msp.mass.gov>
To: [Feddy Agenti](mailto:fed@dhs.us.gov) <fed@dhs.us.gov>
File: [RBGuyCore](#)
Policy: http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_core10.n3

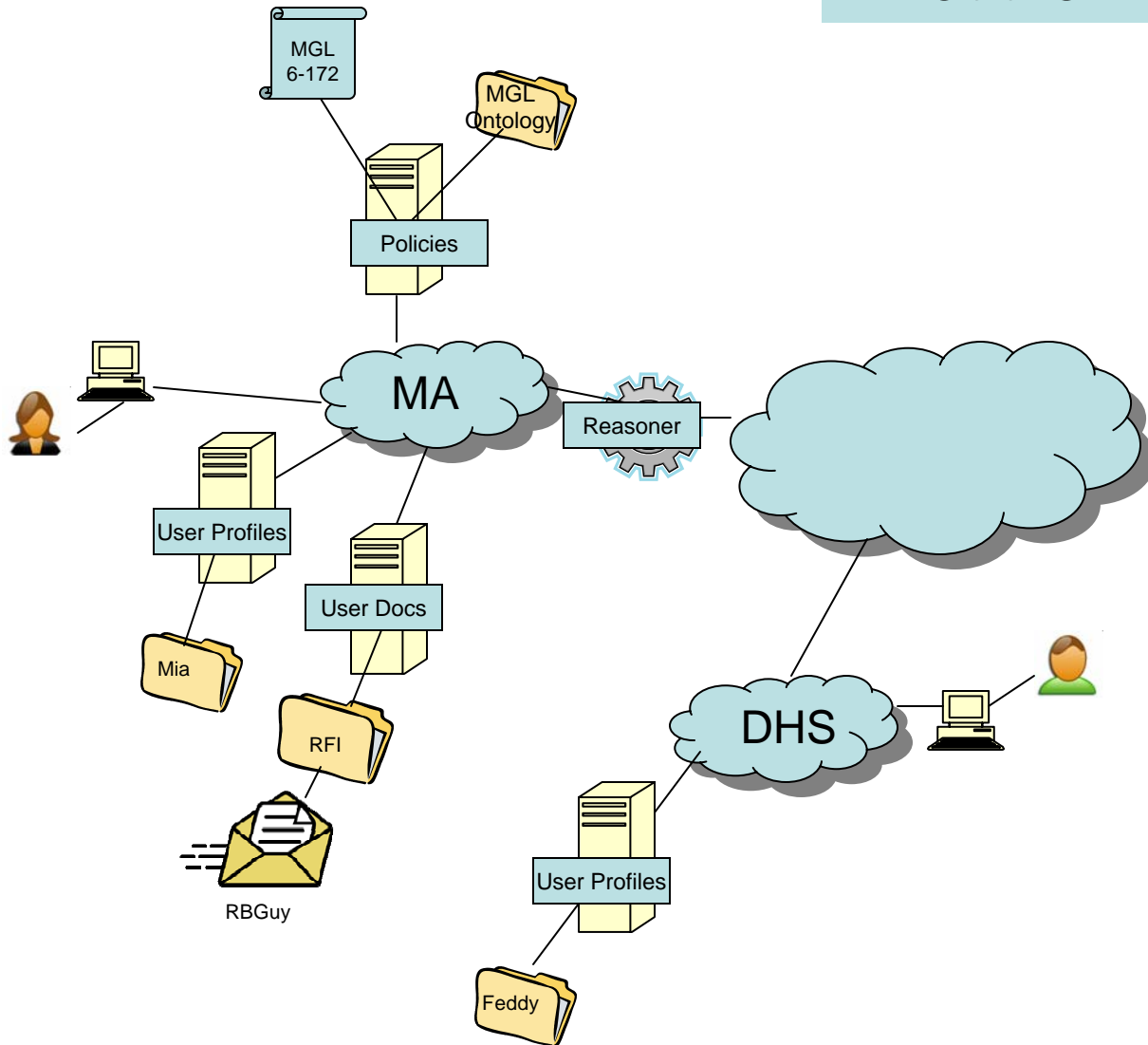
Submit

Links to real files - user profiles, the memo, and the relevant policy - that the reasoner will use.

Rule: Mass. General Law § 6-172 (Privacy of Criminal Records)

- Applies to
 - Criminal Justice Agencies
 - Agencies given statutory permission
 - E.g., military recruiting
 - Agencies determined to be appropriate recipients in the public interest
 - Requests by the general public

What the Reasoner Knows



Simple Compliance Answer

Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172

Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172

Why?

Type RDFDocument

Find All

“Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172.”

Detailed Explanation

http://dice.csail.mit.edu/dhs_air.py?by=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa%23me&to=http%3A//dig.csail.mit.edu/2010/DHS-fusion/US/DHS/profiles/FredAgenti#me&data=http://dig.csail.mit.edu/2010/DHS-fusion/MA/documents/Fake_MA_Request_core10.pdf&rulesFile=http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_core10.n3

▼ Issue:

Whether the [transactions](#) comply with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

▼ Rule:

Rule(s) is/are specified in the [policy file](#).

▼ Analysis:

“[Recipient,] Fred Agenti, is a member of a Criminal Justice Agency...”

- [Request for Information about Robert B. Guy](#) is a dissemination by [Mia Analysa](#) to [Fred Agenti](#), designated as [Transaction](#)
- [Request for Information about Robert B. Guy](#) contains [Criminal Offender Record Information](#), and [Fred Agenti](#) is a member of a Criminal Justice Agency as required by MGL 6-172, Para. 1, Sent. 1a
- Compliance additionally requires: [Fred Agenti](#) is [performing Criminal Justice Duties](#) and [Request for Information about Robert B. Guy](#) limited to data [necessary for Fred Agenti's Criminal Justice Duties](#), as required by MGL 6-172, Para. 1, Sent. 2, Cl. 1:
- Compliance additionally requires that [Fred Agenti](#) is certified by the board as qualified for access, as required by MGL 6-172 Paragraph 2.
- Compliance additionally requires: The agency to which [Mia Analysa](#) belongs shall maintain, for such period as the board shall determine, a listing of the agencies or individuals to which it has released or communicated such information, as required by MGL 6-172, Para. 4, Sent. 1.
- Inquiry is about Robert B. Guy and is based on a personally identifying characteristic, as required by MGL 6-172 Para. 5, Sent. 1, Cl. 2.
- [Fred Agenti](#) performs function [investigation](#).
- Compliance additionally requires that release of [Request for Information about Robert B. Guy](#) would not violate any other provisions of state or federal law, as required by MGL 6-172, Para. 6, Sent. 1(b), Cl. 3.

▼ Conclusion:

The transaction - [Transaction](#) is compliant with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)



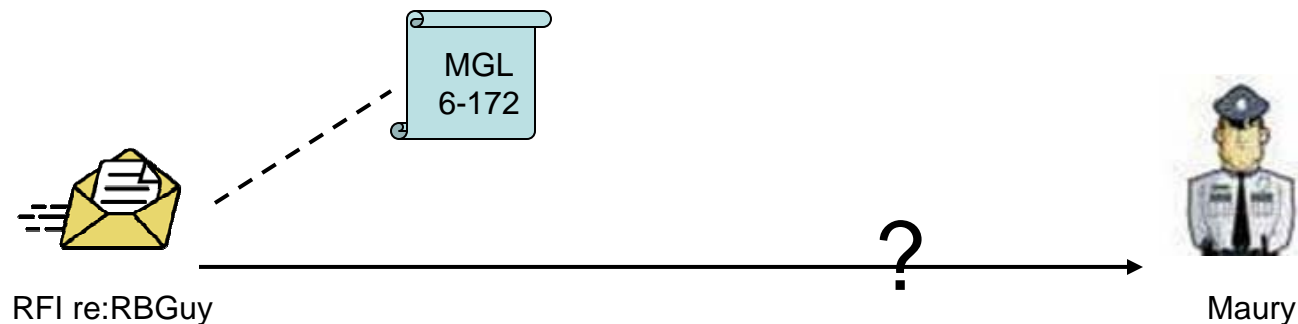
Accomplishment

- Reasoner received
 - Mia's user profile (27 facts)
 - Feddy's user profile (25 facts)
 - Mia's document (6 facts)
 - MGL § 6-172 (35 sub-rules)
- Produced correct result!

Scenarios

- Scenario 2

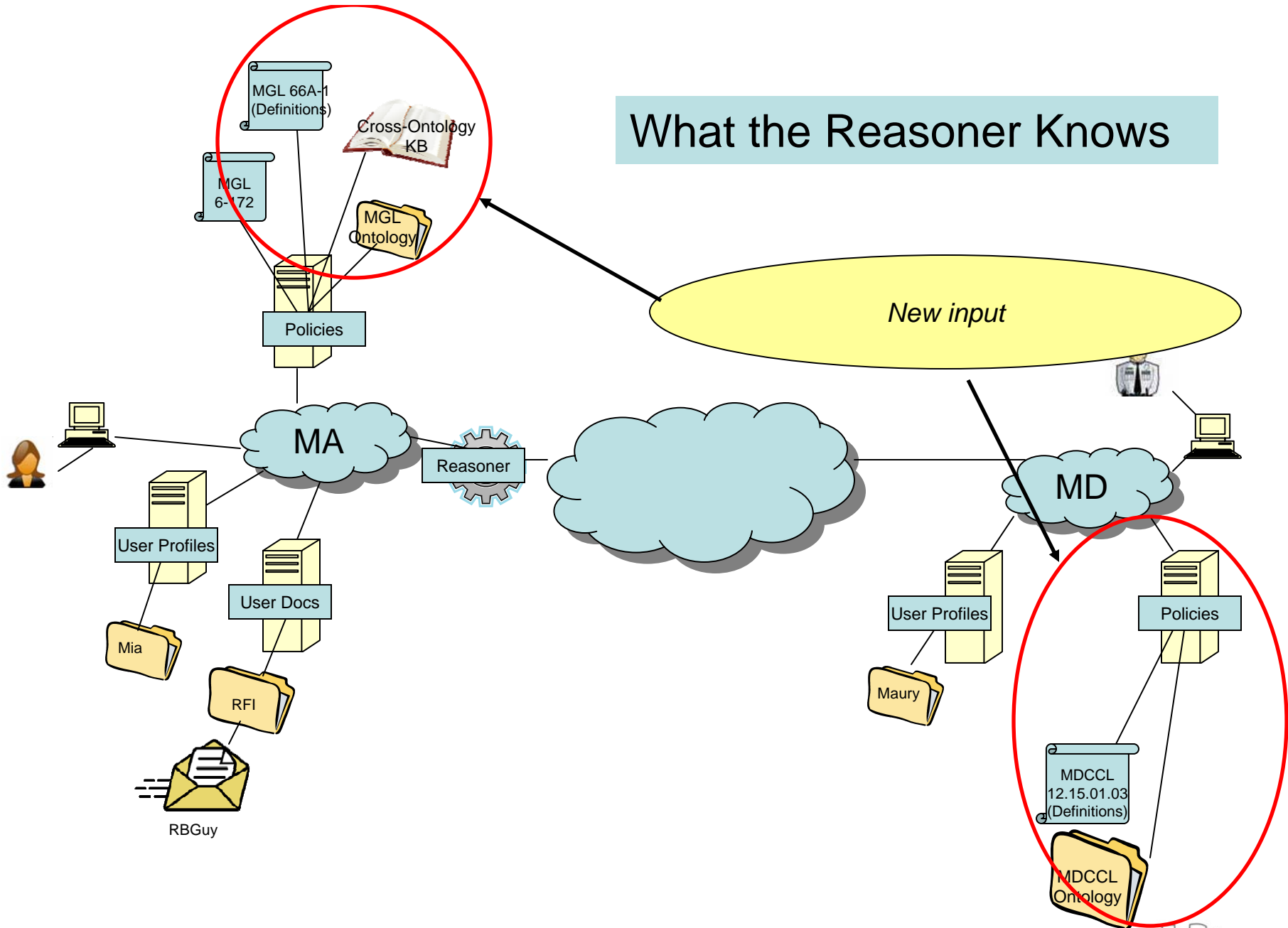
- Baltimore police detective, Maury, does a federated search query across multiple systems; Mia's memo is responsive.
- The Massachusetts system will decide whether Maury can access the document.



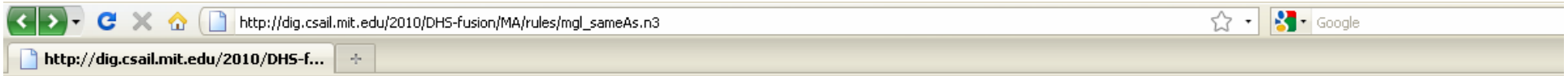
The rule calls another rule: Comparing definitions

- MGL § 6-172
 - requires recipient be a “Criminal Justice Agency”
 - But, having the label “Criminal Justice Agency” is not sufficient
 - Different jurisdictions have different definitions
- MGL § 66A-1 (defines “CJA”)
 - “...an agency at any level of government which performs as its principal function activity relating to (a) the apprehension, prosecution, defense, adjudication, incarceration, or rehabilitation of criminal offenders; or (b) the collection, storage, dissemination, or usage of criminal offender record information.”
- Maury’s MD user profile
 - “...exercise the power of arrest”

What the Reasoner Knows



Cross-ontology Knowledge Base



Massachusetts Cross Ontology Assertions

Massachusetts Cross Ontology Assertions	label	Massachusetts Cross Ontology Assertions
apprehension	sameAs	apprehension of criminal offenders apprehension
enforcement	sameAs	usage
investigation	sameAs	coll
Function	sameAs	Agency Function
authorized by law to exercise the power of arrest of relevant persons	sameAs	apprehension of criminal offenders apprehension
power exercised as authorized by law, or responsibility as required by law	sameAs	Agency Function
criminal history record information	sameAs	Criminal Offender Record Information
convicted pursuant	sameAs	convicted pursuant
sentenced pursuant	sameAs	sentenced pursuant
Maximum Allowable Sentence Length	sameAs	Maximum Allowable Sentence Length
sentence imposed	sameAs	sentence imposed
has custody status	sameAs	has custody status
parole	sameAs	parole
apprehension	sameAs	apprehension of criminal offenders apprehension
Function	sameAs	Agency Function

*“authorized by law to exercise power of arrest...”
is “sameAs” “apprehension”*

Type RDFDocument

Label Massachusetts Cross Ontology Assertions

Find All

Find: Match case



MASSACHUSETTS INSTITUTE OF TECHNOLOGY

For info, contact: kkw@mit.edu
K. Krasnow Waterman



Browser window showing a URL: http://dice.csail.mit.edu/dhs_air.py?by=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa#me&to=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MD/profiles/MauryCopp#me&data=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MA/documents/Fake_MA_Request.pdf&rulesFile=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172.n3

Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172

Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172

Why?

Find: Next Previous Highlight all Match case

http://dice.csail.mit.edu/dhs_air.py?by=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa%23me&to=http%3A//dig.csail.mit.edu/20

http://dice.csail.mit.edu/MA/ http://dice.csail.mit.edu/dhs_air...

/MauryCopp#me&data=http://dig.csail.mit.edu/2010/DHS-fusion/MA/documents/Fake_MA_Request.pdf&rulesFile=http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172.n3

Issue:

Whether the [transactions](#) comply with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

Rule:

Rule(s) is/are specified in the [policy file](#).

Analysis:

- [Request for Information about Robert B. Guy](#) is a dissemination by [Mia Analysa](#) to [Maury Copp](#), designated as [Transaction](#)
- [Request for Information about Robert B. Guy](#) contains [Criminal Offender Record Information](#), and [Maury Copp](#) is a member of a Criminal Justice Agency as defined by MGL 66A-1.
- Compliance additionally requires: [Maury Copp](#) is [actually performing Criminal Justice Duties](#) and [Request for Information about Robert B. Guy](#) limited to data [necessary for actual performance of Maury Copp's Criminal Justice Duties](#), as required by MGL 6-172, Para. 1, Sent. 2, Cl. 1:
- Compliance additionally requires that [Maury Copp](#) is certified by the board as qualified for access, as required by MGL 6-172 Paragraph 2.
- Compliance additionally requires: The agency to which [Mia Analysa](#) belongs shall maintain, for such period as the board shall determine, a listing of the agencies or individuals to which it has released or communicated such information, as required by MGL 6-172, Para. 4, Sent. 1.
- Inquiry is about Robert B. Guy and is based on a personally identifying characteristic, as required by MGL 6-172 Para. 5, Sent. 1, Cl. 2.
- [Request for Information about Robert B. Guy](#) is a [Criminal Offender Record Information](#)
- [Maury Copp](#) performing function [authorized by law to exercise the power of arrest of relevant persons](#) is a member of a Criminal Justice Agency as defined by MGL 66A-1.
- Compliance additionally requires that release of [Request for Information about Robert B. Guy](#) would not violate any other provisions of state or federal law, as required by MGL 6-172, Para. 6, Sent. 1(b), Cl. 3.

Conclusion:

The transaction - [Transaction](#) is compliant with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

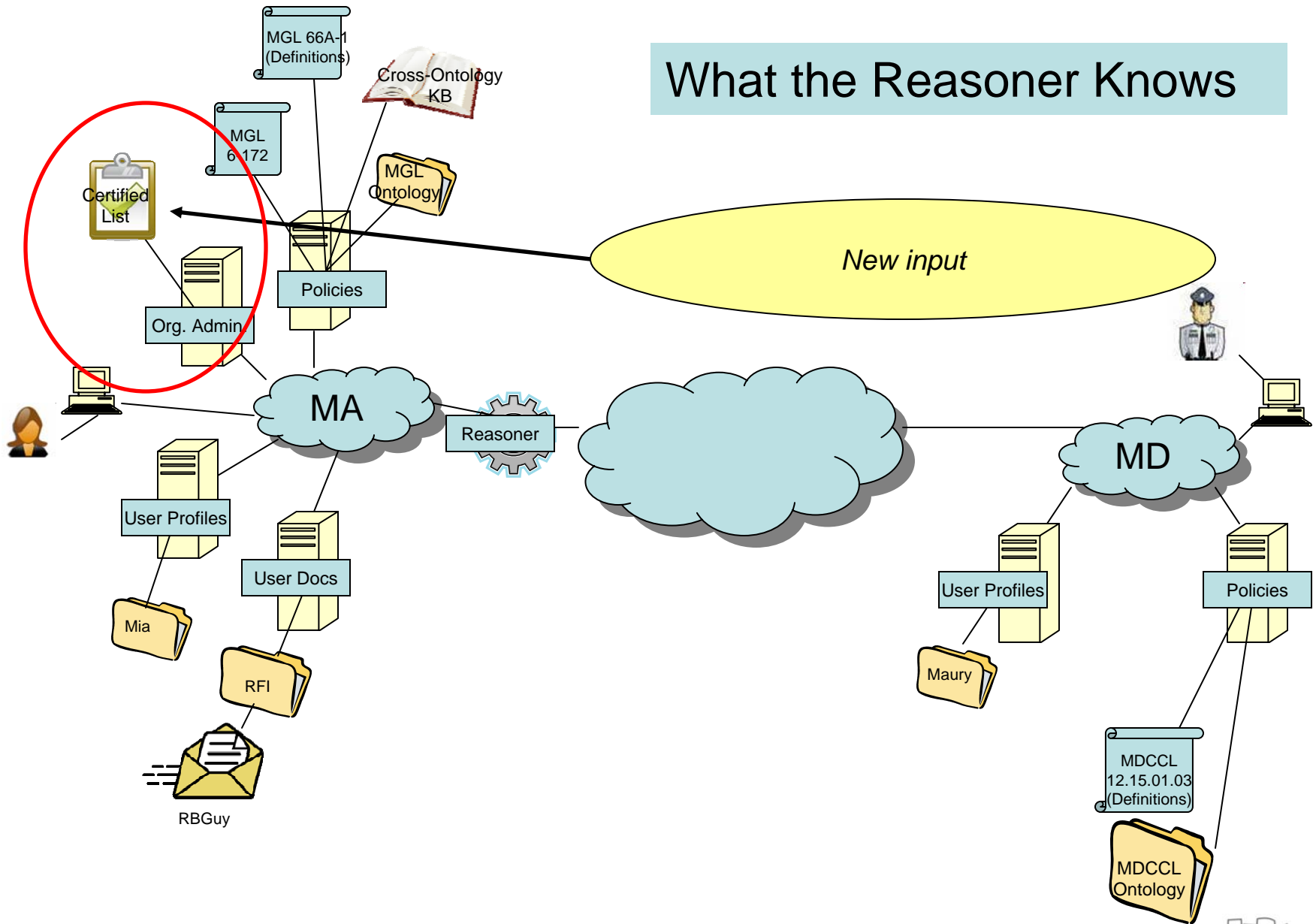
Type ▶ RDFDocument
Error requestTimeout
Find All

Determines that Maury's MD function of "...arrest" meets the MA definition of Criminal Justice Agency

Adding additional fact requirements

- MGL § 6-172
 - Requires that the requestor be a CJA
 - AND certified by a Board
 - In writing
 - No access until after that certification

What the Reasoner Knows



▼ http://dice.csail.mit.edu/dhs_air.py?by=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa#me&to=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MD/profiles/MauryCopp#me
data=http://dig.csail.mit.edu/2010/DHS-fusion/MA/documents/Fake_MA_Request.pdf&rulesFile=http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172.n3

▼ Issue:

Whether the [transactions](#) comply with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

▼ Rule:

Rule(s) is/are specified in the [policy file](#).

▼ Analysis:

- [Request for Information about Robert B. Guy](#) is a dissemination by [Mia Analysa](#) to [Maury Copp](#), designated as [Transaction](#)
- [Request for Information about Robert B. Guy](#) contains [Criminal Offender Record Information](#), and [Maury Copp](#) is a member of a Criminal Justice Agency as defined by MGL 66A-1.
- Compliance additionally requires: [Maury Copp](#) is [actually performing Criminal Justice Duties](#) and [Request for Information about Robert B. Guy](#) limited to data [necessary for actual performance of Maury Copp's Criminal Justice Duties](#), as required by MGL 6-172, Para. 1, Sent. 2, Cl. 1.
- [Maury Copp](#) is a member of <http://dig.csail.mit.edu/2010/DHS-fusion/MD/profiles/BaltimorePoliceDept.org#me> which is certified by the board, as required by MGL 6-172 Paragraph 2.
- Compliance additionally requires: The agency to which [Mia Analysa](#) belongs shall maintain, for such period as the board shall determine, a listing of the agencies or individuals to which it has released or communicated such information, as required by MGL 6-172, Para. 4, Sent. 1.
- Inquiry is about Robert B. Guy and is based on a personally identifying characteristic, as required by MGL 6-172 Para. 5, Sent. 1, Cl. 2
- [Request for Information about Robert B. Guy](#) is a [Criminal Offender Record Information](#).
- [Maury Copp](#) performing function [arrest](#) is a member of a Criminal Justice Agency as defined by MGL 66A-1.
- [Maury Copp](#) is a member of organization <http://dig.csail.mit.edu/2010/DHS-fusion/MD/profiles/BaltimorePoliceDept.org#me>.
- Compliance additionally requires that release of [Request for Information about Robert B. Guy](#) would not violate any other provisions of state or federal law, as required by MGL 6-172, Para. 6, Sent. 1 (b), Cl. 3.

*Determines that Maury is a member of an organization
"which is certified by the board..."*

▼ Conclusion:

The transaction - [Transaction](#) is compliant with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

Type RDFDocument

Addressing subjective rules: In the Result

- In Scenario 1 (Mia to Feddy), the reasoner listed subjective requirements as conditions to the finding of compliance

Result Conditional on Subjective

http://dice.csail.mit.edu/dhs_air.py?by=http%3A//dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa%23me&to=http%3A//dig.csail.mit.edu/2010/DHS-fusion/US/DHS/profiles/FredAgenti#me&data=http://dig.csail.mit.edu/2010/DHS-fusion/MA/documents/Fake_MA_Request_core10.pdf&rulesFile=http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_core10.n3

Issue:

Whether the [transactions](#) comply with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

Rule:

Rule(s) is/are specified in the [policy file](#).

Analysis:

- [Request for Information about Robert B. Guy](#) is a dissemination by [Mia Analysa](#) to [Fred Agenti](#), designated as [Transaction](#)
- [Request for Information about Robert B. Guy](#) contains [Criminal Offender Record Information](#), and [Fred Agenti](#) is a member of a Criminal Justice Agency as required by MGL 6-172, Para. 1, Sent. 1a.
- Compliance additionally requires: [Fred Agenti](#) is [performing Criminal Justice Duties](#) and [Request for Information about Robert B. Guy](#) limited to data [necessary for Fred Agenti's Criminal Justice Duties](#), as required by MGL 6-172, Para. 1, Sent. 2, Cl. 1:
- Compliance additionally requires that [Fred Agenti](#) is certified by the board as qualified for access, as required by MGL 6-172 Paragraph 2.
- Compliance additionally requires: The agency to which [Mia Analysa](#) belongs shall maintain, for such period as the board shall determine, a listing of the agencies or individuals to which it has released or communicated such information, as required by MGL 6-172, Para. 4, Sent. 1.
- Inquiry is about Robert B. Guy and is based on a personally identifying characteristic, as required by MGL 6-172 Para. 5, Sent. 1, Cl. 2.
- [Fred Agenti](#) performs function [investigation](#).
- Compliance additionally requires that release of [Request for Information about Robert B. Guy](#) would not violate any other provisions of state or federal law, as required by MGL 6-172, Para. 6, Sent. 1(b), Cl. 3.

Conclusion:

The transaction - [Transaction](#) is compliant with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

Compliance "additionally requires" that recipient "is performing Criminal Justice Duties" and the "Request...is limited to data necessary for [those] duties"

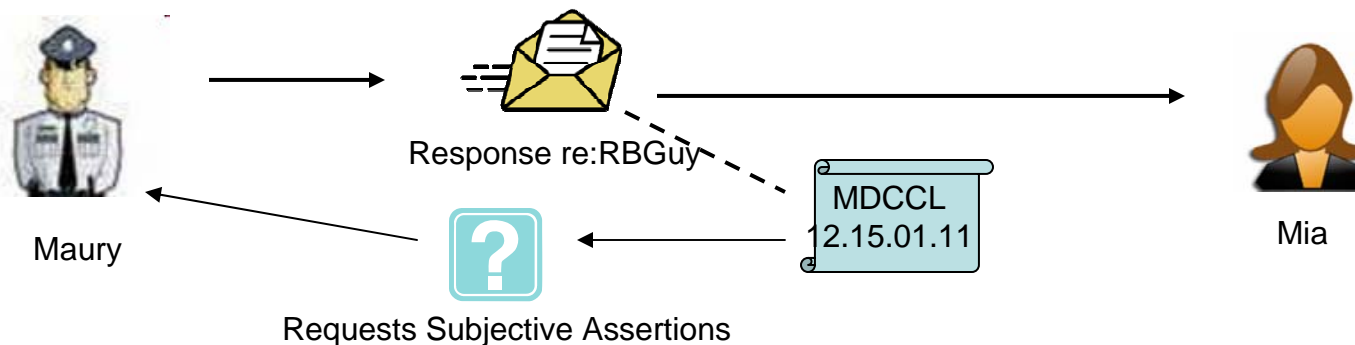


Next: Pre-processing subjective requirements

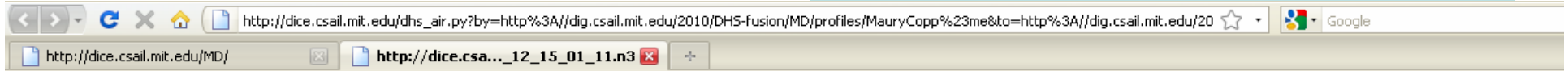
Scenarios

- Scenario 3

- Baltimore detective (Maury) is sending a response to the Massachusetts analyst's (Mia's) Request for Information (RFI).
- Response contains detailed criminal history info about a specific person (RBGuy); regulated by MD Code of Law 12.15.01.11.



Query for Subjective Assertions



Decision incorporates Subjective Assertions

The screenshot shows a web browser window with the URL http://dice.csail.mit.edu/dhs_air.py?subjectives=true&by=http%3A%2F%2Fdig.csail.mit.edu%2F2010%2FDHS-fusion%2FMD%2Fprofiles%2FMauryCopp#me&to=http%3A%2F%2Fdig.csail.mit.edu%2F2010%2FDHS-fusion%2FMA%2Fprofiles%2FMiaAnalysa#me&data=http%3A%2F%2Fdig.csail.mit.edu%2F2010%2FDHS-fusion%2FMD%2Fdocuments%2FFake_MD_Response.pdf&rulesFile=http%3A%2F%2Fdig.csail.mit.edu%2F2010%2FDHS-fusion%2FMD%2Fdocuments%2FMdCodeComLaw_12_15_01_11.n3&subjective=MD_12_15_01_11_s1&subjective=MD_12_15_01_11_s3&subjective=MD_12_15_01_11_s4. The page content is as follows:

Issue:
Whether the [transactions](#) comply with [MD 12 15 01 11](#)

Rule:
Rule(s) is/are specified in the [policy file](#).

Analysis:

- [Mia Analysa](#) is a [Maryland Criminal Justice Agency](#). [Transaction](#) is a dissemination request from [Maury Copp](#) to [Mia Analysa](#).
- If [Transaction](#) is compliant, it is compliant only if [Transaction](#) is made in accordance with applicable regulations adopted by [Secretary](#).
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf is required in the performance of [Mia Analysa's](#) function as a criminal justice agency.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf has been verified by [Central Repository](#) to be complete, accurate, and current.
- [Mia Analysa's](#) identity has been verified by [Maury Copp](#).

Conclusion:
The transaction - [Transaction](#) is compliant with [MD 12 15 01 11](#)

Type RDFDocument

Data is "required in the performance of Mia's function as a criminal justice agency."

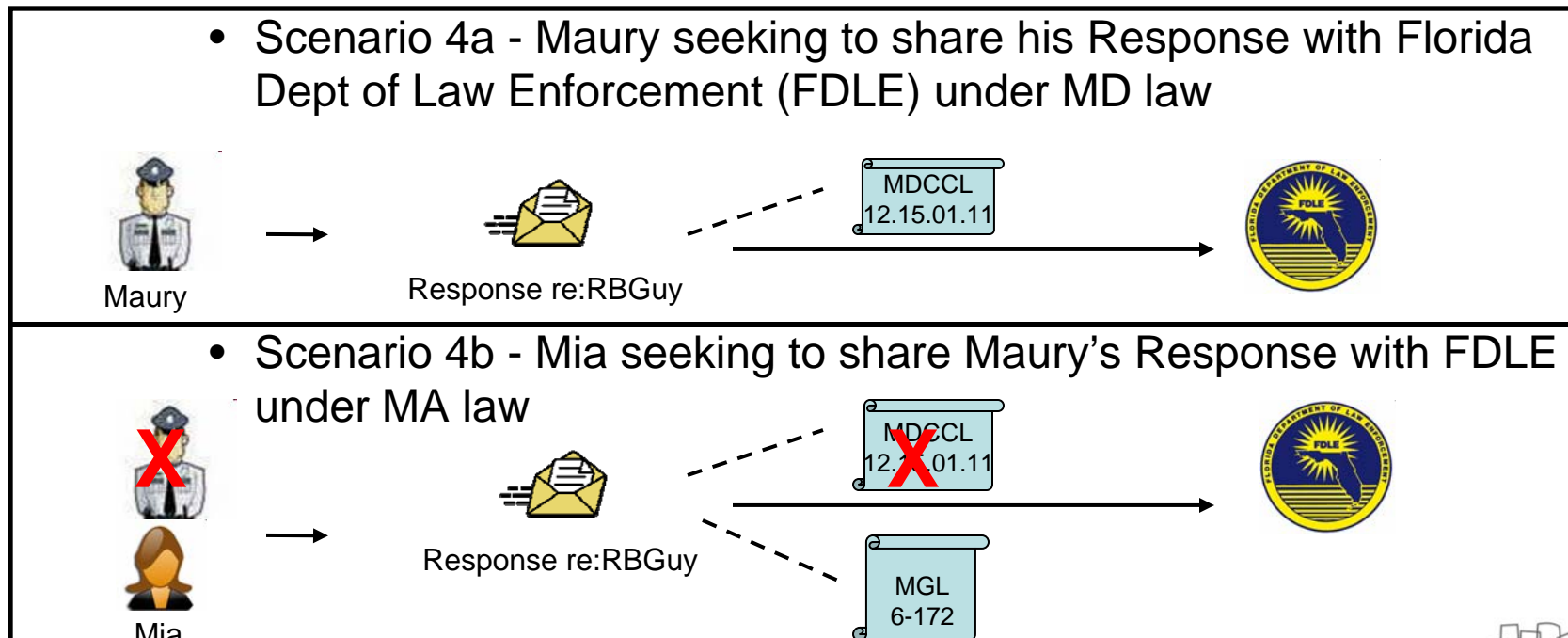
Recipient's "identity has been verified by" sender.

What if?

Applying a different rule

- Scenario 4

- Maury is cautious. Before giving his information to Mia, he wants to understand what she can do with his information.
- Maury compares:



Risk Modeling with a Different Party &/or Policy

http://dice.csail.mit.edu/MD/



Please enter the sender's URL:

Mia Anlysa <mia@msp.mass.gov>

Please enter the data's URL, or select from the files below:

http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD

- Fusion
 - Copp
 - Responses
 - EFudd
 - ACapone
 - ToMia
 - ToMiaCore
- Received

Please enter the recipient's URL:

FL Dept. Law Enforcement <bogus@fdle.state.fl.us>

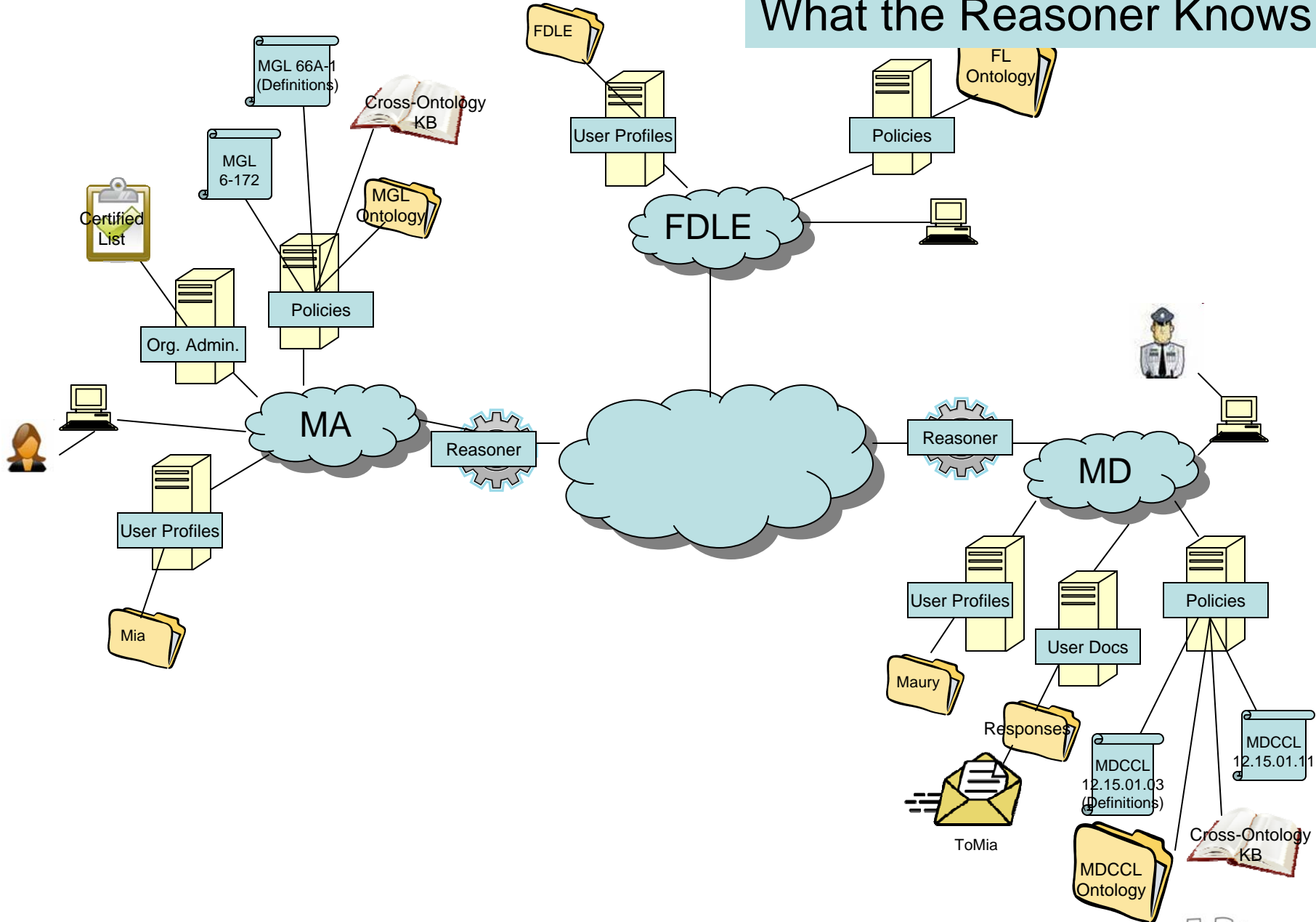
Please enter a policy's URL:

m

- Massachusetts MGL 6-172
<http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172.n3>
- Massachusetts core 10 MGL 6-172
<http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_core10.n3>
- Maryland MdCodeComLaw_12_15_01_11
<http://dig.csail.mit.edu/2010/DHS-fusion/MD/rules/MdCodeComLaw_12_15_01_11.n3>
- US 5_USC_552a
<http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/rules/5_USC_552a.n3>

Submit

What the Reasoner Knows



▼ http://dice.csail.mit.edu/dhs_air.py?by=http://dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa#me&to=http://dig.csail.mit.edu/2010/DHS-fusion/FL/profiles/FDLE.org#me&data=http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf&rulesFile=http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172.n3

▼ Issue:

Whether the [transactions](#) comply with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

▼ Rule:

Rule(s) is/are specified in the [policy file](#).

▼ Analysis:

- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf is a dissemination by [Mia Analysa](#) to [Florida Department of Law Enforcement](#), designated as [Transaction](#)
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf contains [Criminal Offender Record Information](#), and [Florida Department of Law Enforcement](#) is a member of a Criminal Justice Agency as defined by MGL 66A-1.
- Compliance additionally requires: [Florida Department of Law Enforcement](#) is [performing Criminal Justice Duties](#) and http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf limited to data [necessary for Florida Department of Law Enforcement's Criminal Justice Duties](#), as required by MGL 6-172, Para. 1, Sent. 2, Cl. 1:
- The agency to which [Florida Department of Law Enforcement](#) belongs is not certified by the board as required by MGL 6-172, Para. 2.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf is a request by [Florida Department of Law Enforcement](#) to [Mia Analysa](#) in writing.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf contains conviction data [CONVICTION DATA](#) and therefore shall be available to any person upon written request per MGL 6-172 Para. 6, Sentence 1a.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf contains information indicating custody status and placement within the correction system, and therefore shall be available to any person upon written request per MGL 6-172 Para. 6, Sentence 1b.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf does not contain [personal information](#), as stated in MGL 6-172 Para. 6, Sent. 1 (b), Cl. 1.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf Consists of Conviction Data.
- Maximum allowable sentence is imprisonment for a term of five years or more as required by MGL 6-172, Para. 7, Sent. 1, Cl. 1.
- [Florida Department of Law Enforcement](#) performing function [apprehension](#) is a member of a Criminal Justice Agency as defined by MGL 66A-1.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf contains conviction data. Subject is convicted pursuant to <http://law.justia.com/maryland/codes/gps/11-114.html>.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf is a [criminal history record information](#).
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf contains custody status: [mdocl:Parole](#).
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf maximum allowable sentence length of: 20.
- http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf Subject received sentence: 5.
- Compliance additionally requires that release of http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf would not violate any other provisions of state or federal law, as required by MGL 6-172, Para. 6, Sent. 1(b), Cl. 3.

▼ Conclusion:

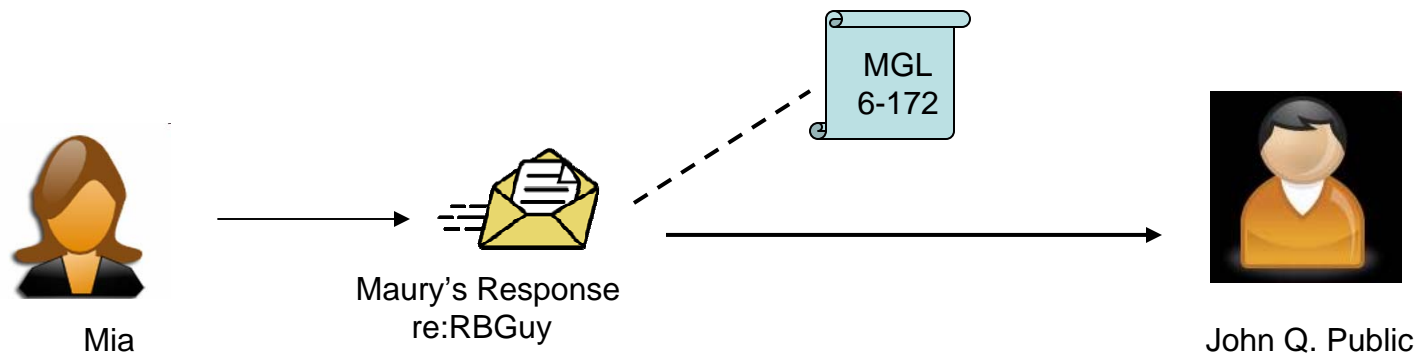
The transaction - [Transaction](#) is compliant with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

Type RDF Document

Testing the policy expression

- Scenario 5

- Under the MA law, the public can have access to some criminal history info
 - If there was a conviction
 - If the possible sentence was greater than 5 years
 - If the subject is still in jail or on parole





Please enter the sender's URL:



Please enter the data's URL, or select from the files below:

- Fusion
 - Copp
 - Responses
 - EFudd
 - ACapone
 - ToMia
 - ToMiaCore
- Received

Please enter the recipient's URL:



Please enter a policy's URL:

Testing with "John Q. Public".

From: [Mia.Analysa](#) <mia@msp.mass.gov>
To: [John Q. Public](#) <jqp@lake_wobegon.rfd.mn.us>
File: [ToMia](#)
Policy: [Massachusetts MGL 6-172](#)

Issue:

Whether the [transactions](#) comply with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

Rule:

Rule(s) is/are specified in the [policy file](#).

Analysis:

- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) is a dissemination by [Mia Analysa](#) to [John Q. Public](#), designated as [Transaction](#)
- [John Q. Public](#) is not a member of [Criminal Justice Agency](#). Compliant dissemination may be possible under other criteria.
- Subject is not enlisting. Compliant dissemination may be possible under other criteria.
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) is a request by [John Q. Public](#) to [Mia Analysa](#) in writing.
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) contains conviction data [CONVICTION DATA](#) and therefore shall be available to any person upon written request per MGL 6-172 Para: Sentence 1a.
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) contains information indicating custody status and placement within the correction system, and therefore shall be available to any person upon written request per MGL 6-172 Para. 6, Sentence 1b.
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) does not contain [personal information](#), as stated in MGL 6-172 Para. 6, Sent. 1 (b), Cl. 1.
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) Consists of Conviction Data.
- Maximum allowable sentence is imprisonment for a term of five years or more as required by MGL 6-172, Para. 7, Sent. 1, Cl. 1.
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) contains conviction data. Subject is convicted pursuant to [http://law.justia.com/maryland/codes/gps/11-114.html](#).
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) contains custody status: [mdcccl:Parole](#).
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) maximum allowable sentence length of: 20.
- [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) Subject received sentence: 5.
- Compliance additionally requires that release of [http://dig.csail.mit.edu/2010/DHS-fusion/MD/documents/Fake_MD_Response.pdf](#) would not violate any other provisions of state or federal law, as required by MGL 6-172 Para. 6, Sent. 1(b), Cl. 3.

Conclusion:

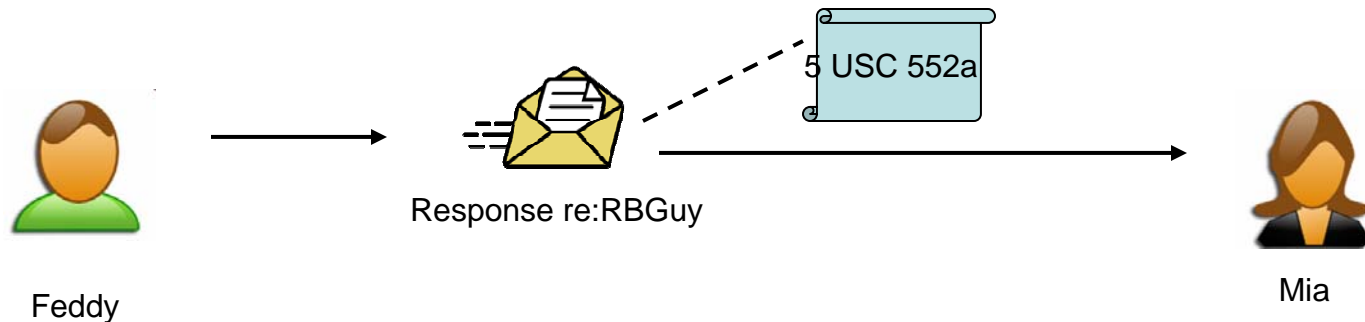
The transaction - [Transaction](#) is compliant with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

Accomplishment

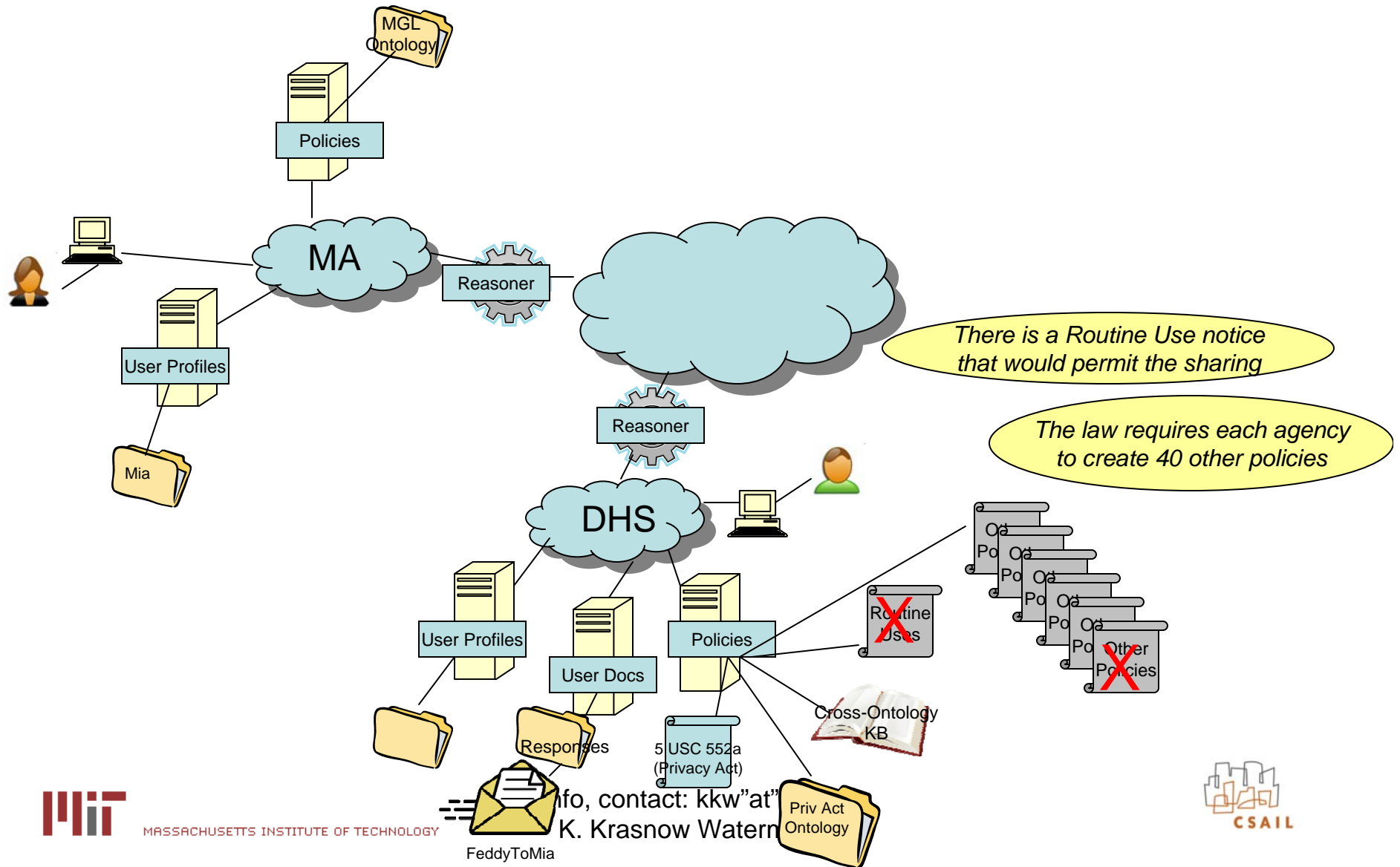
- Recognizes that John Q. Public doesn't meet any of the criteria in paragraph 1.
- Finds the match in sub-rules from paragraph 7.
- Reads the tags from the document to match with the requirements
 - there was a conviction
 - the possible sentence was greater than 5 years
 - the subject is still in jail or on parole

Scenarios: Increasing Rule Complexity

- Scenario 6
 - Feddy from DHS wants to respond to Mia.
 - His response will be regulated by the Privacy Act and its 135 sub-rules (1200 lines of code)



What the Reasoner Doesn't Know



Non-compliant for Many Reasons

Issue:

Whether the [transactions](#) comply with [The Privacy Act of 1974 552a b](#)

Rule:

Rule(s) is/are specified in the [policy file](#).

Analysis:

- [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#) contains PII about Robert Guy. Disclosure cannot be made except under specifically defined conditions.
- [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#) about Robert Guy was not requested by Robert Guy. Compliant disclosure may be possible under other conditions.
- Robert Guy did not give consent to use [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#). Compliant disclosure may be possible under other conditions.
- [Transaction](#) has purpose: [Authorized civil or criminal law enforcement activity](#).
- [Fred Agenti](#) cannot give [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#) to [Mia Analysa](#), because purpose of inquiry [Authorized civil or criminal law enforcement activity](#) does not match [Need to Know](#) or is not necessary to the performance of duties of [Mia Analysa](#), or because [Mia Analysa](#) is not from the agency which maintains the record.
- [Fred Agenti](#) cannot give [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#) to [Mia Analysa](#), because purpose of inquiry [Authorized civil or criminal law enforcement activity](#) does not match [5 U.S.C. Section 552](#) therefore FOIA (5 USC 552) does not require it.
- [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_System_of_Records.html](#) is maintained by [Fred Agenti](#).
- [Mia Analysa](#) is a member of Government Agency [http://dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/CommonwealthFusionCenter.org/me](#).
- [Transaction](#) has law enforcement purpose.
- [Mia Analysa](#) has job title [section head](#).
- Requestor: [Mia Analysa](#) job title [section head](#) does not match [head of](#) as required by [The_Privacy_Act_of_1974_552a_b7](#).
- [Transaction](#) purpose [Authorized civil or criminal law enforcement activity](#) does not match [Affecting Health and Safety](#). Compliant disclosure may be possible under other conditions.
- [Fred Agenti](#) cannot give [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#) to [Mia Analysa](#) because it is not within the jurisdiction of [Mia Analysa](#). Compliant disclosure may be possible under other conditions.
- [Fred Agenti](#) cannot give [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#) to [Mia Analysa](#) because it is not in the course of the performance of duties of the General Accounting Office. Compliant disclosure may be possible under other conditions.
- [Fred Agenti](#) cannot give [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#) to [Mia Analysa](#), because it is not pursuant to the order of a court of competent jurisdiction. Compliant disclosure may be possible under other conditions.
- [Fred Agenti](#) cannot give [http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/documents/Fake_DHS_Response.pdf](#) to [Mia Analysa](#) because it is not in accordance with section 3711(e) of Title 31. No compliance conditions under [The_Privacy_Act_of_1974_552a](#) (b) could be found.

Conclusion:

The transaction - [Fred Agenti](#) is non compliant with [The Privacy Act of 1974 552a b](#)

Type: RFDDocument

Find: head Next Previous Highlight all Match case

Adding to Cross-Ontology Knowledge

- Feddy notices something not quite right.

Requestor: Mia Analysa job title section head does not match head of as required by The_Privacy_Act_of_1974_552a_b7.

- He knows* he can treat Mia as “head of” her agency for this purpose because the head of her organization delegated the record requesting authority to “section chiefs”.
- The system will let him add that equivalency to the cross-ontology knowledge base.

* DOJ says (<http://www.justice.gov/opcl/1974condis.htm>):

Record-requesting authority may be delegated down to lower-level agency officials when necessary, but not below the "section chief" level. See OMB Guidelines, 40 Fed. Reg. at 28,955; see also 120 Cong. Rec. 36,967 (1974), reprinted in Source Book at 958, available at http://www.loc.gov/rr/frd/Military_Law/pdf/LH_privacy_act-1974.pdf.

Knowledge Base Editor

Knowledge base for the DHS Fusion Center

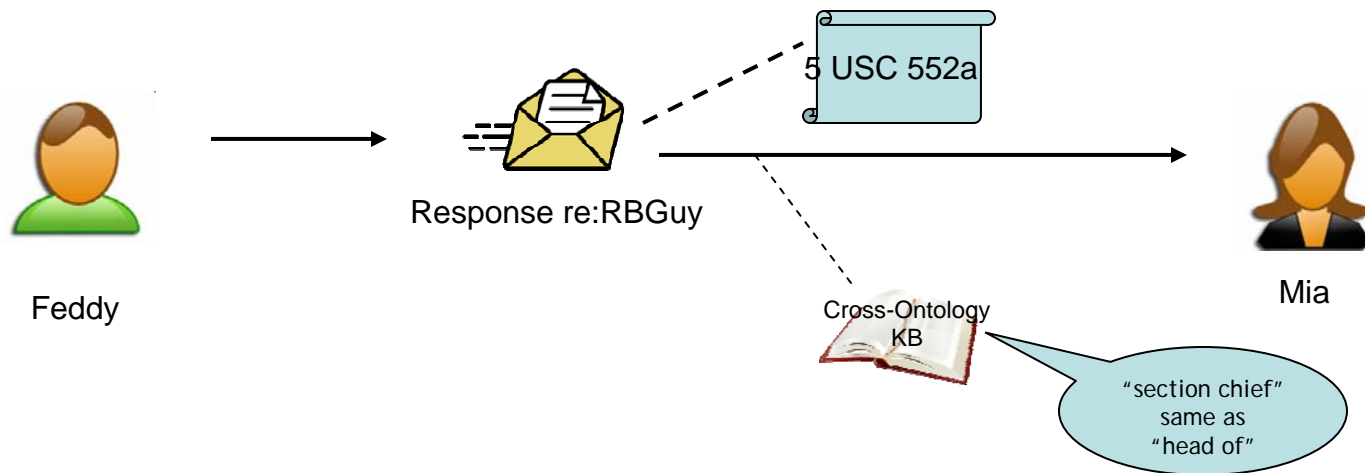
This is a series of facts that should be applied to all transactions from the DHS Fusion Center. If a pair of terms from different domains refer to the same object or action, they should be added here.

Delete?	First term:	same as	Second term:
	<input type="text" value="on/MA/rules/MGL_6-172_ONT#section_heac"/>	same as	<input type="text" value="r/US/DHS/rules/5_USC_552a_ONT#headOf"/>

Feddy tells his system that “section chief” and “head of” are equivalent in this context by cutting and pasting their link addresses into the blanks.

read Match case

- Feddy runs his request again (after adding the “same as” information to the cross-ontology knowledge base)





Issue:

Whether the [transactions](#) comply with http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/rules/5_USC_552a.n3

Rule:

Rule(s) is/are specified in the [policy file](#).

Analysis:

- [Fake_System_of_Records.html](#) is maintained by [Feddy Agenti](#) .
- [Mia Analyza](#) has job title http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_Ont#section_head .
- http://dig.csail.mit.edu/2010/DHS-fusion/transaction_log#Transaction has purpose: [Authorized civil or criminal law enforcement activity](#) .
- [Mia Analyza](#) is a member of Government Agency [Commonwealth Fusion Center](#) .
- [Fake_DHS_Response.pdf](#) contains PII about Robert Guy. Disclosure cannot be made except under specifically defined conditions.
- Robert Guy did not give consent to use [Fake_DHS_Response.pdf](#) . Compliant disclosure may be possible under other conditions.
- http://dig.csail.mit.edu/2010/DHS-fusion/transaction_log#Transaction has law enforcement purpose.
- [Fake_DHS_Response.pdf](#) about Robert Guy was not requested by Robert Guy. Compliant disclosure may be possible under other conditions.
- [Feddy Agenti](#) cannot give [Fake_DHS_Response.pdf](#) to [Mia Analyza](#) , because purpose of inquiry [Authorized civil or criminal law enforcement activity](#) does not match [5 U.S.C. Section 552](#) therefore FOIA (5 USC 552) does not require it.
- [Feddy Agenti](#) cannot give [Fake_DHS_Response.pdf](#) to [Mia Analyza](#) , because purpose of inquiry [Authorized civil or criminal law enforcement activity](#) does not match [Need to Know](#) or is not necessary to the performance of duties of [Mia Mia Analyza](#) is not from the agency which maintains the record.
- [Feddy Agenti](#) can give [Fake_DHS_Response.pdf](#) to [Mia Analyza](#) , because it is being used for an authorized law enforcement activity and the head of the recipient agency has filed the appropriate written request.

Conclusion:

The transaction - [Feddy Agenti](#) is all [compliant with 1.2a Federal Statute The Privacy Act of 1974, 5 U.S.C. 552a \(b\)\(7\)](#)

*“...compliant with...
a Federal Statute The Privacy Act of 1974, 5 U.S.C. 552a (b)(7)”*

Possible Future Scenarios

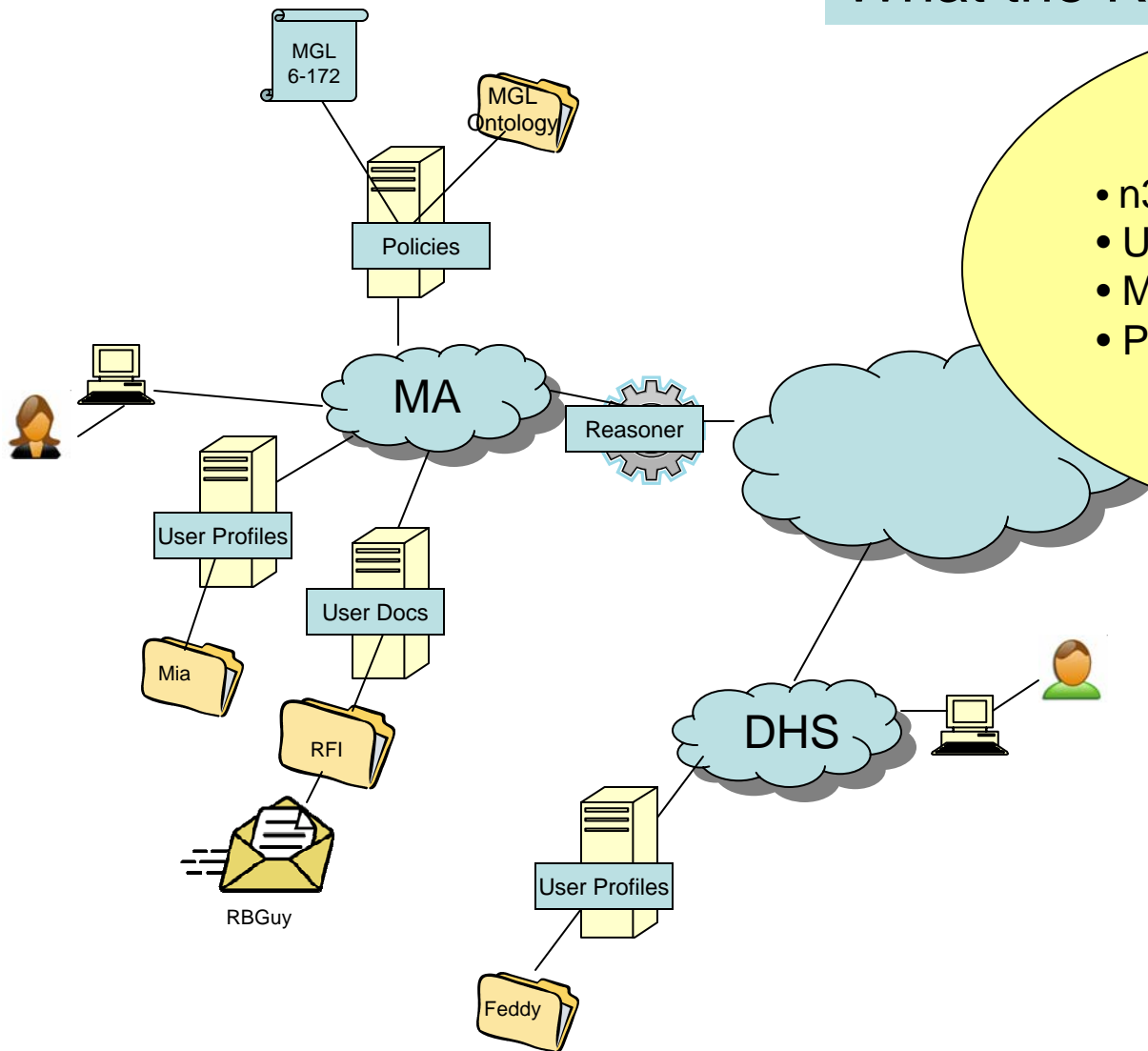
- Hand-shake
 - Recipient is permitted to accept
 - Sender is permitted to send
- Applying multiple rules
- Potentially conflicting rules
- Recognizing compliant pattern and applying it to large volume transactions

Future Research

- Scalability
 - Goal-directed reasoning
- Transparency
 - Permanent store for TMS
 - Aggregate reporting
- Validation
 - Policy expression
 - Results
- Flexibility
 - Handling incomplete information
 - Propagation

Technology Notes

What the Reasoner Knows:



- n3 & RDF
- User profiles adapted from FOAF
- Memos in pdf with xmp
- Policies expressed in AIR

File Edit View Help

```

@prefix rsa: <http://www.w3.org/ns/auth/rsa#>.
@prefix cert: <http://www.w3.org/ns/auth/cert#>.
@prefix dc: <http://purl.org/dc/elements/1.1/>.

@prefix foaf: <http://xmlns.com/foaf/0.1/>.
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#>.
@prefix con: <http://www.w3.org/2000/10/swap/pim/contact#>.
@prefix s: <http://www.w3.org/2000/01/rdf-schema#>.
@prefix geo: <http://www.w3.org/2003/01/geo/wgs84_pos#>.
@prefix doap: <http://usefulinc.com/ns/doap#>.

@prefix fusion: <http://dig.csail.mit.edu/2010/DHS-fusion/common/fusion_ONT#>.
@prefix mgl: <http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_ONT#>.
@prefix mglcja: <http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_66A-1_ONT#>.
@prefix : <http://dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa#>.

<>
  dc:title
    "Mia Analysa's User Profile";
  a foaf:PersonalProfileDocument;
  foaf:maker
    <#me>;
  rdfs:seeAlso
    "http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_66A-1_ONT.n3";
  rdfs:seeAlso
    "http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_ONT.n3";
  foaf:primaryTopic
    <#me>.
<#me>
  a con:Female, foaf:Person;
  s:label
    "Mia Analysa";
  con:office
    [ con:address
      [ con:city
          "Maynard";
        con:state
          "MA";
        con:country
          "USA";


```



User Profile: Tabulator

Browser tabs: <http://dice.csail.mit.edu/MA/> <http://dig.csail.mit.edu/2010/DH...>

▼ **Mia Analysa**

- Authorized purpose ▶ usage
- Type ▶ Female
▶ <http://xmlns.com/foaf/0.1/Person>
- Label Mia Analysa
- Office ▶ ...
- Assigned to organization Commonwealth Fusion Center
- Family name Analysa
- Givenname Mia
- Government type ▶ MA Executive Branch
- Img 
- Job title Intelligence_Analyst
- Mbox ▶ mia@mss.MASS.gov
- Mbox sha1sum bd984f79e11e0f4265f9fd773d9e236ced767ff8
- Member ▶ <http://dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/CommonwealthFusionCenter.org#me>
- Name Mia Analysa
- Nick
- Office near ▶ ...
- Organization Massachusetts State Police
- Organization Homepage ▶ <http://www.mass.gov/?pageID=eopsagencylanding&L=3&L0=Home&L1=Public+Safety+Agencies&L2=Massachusetts+State+Police&sid=Eeops>
- Organization type Criminal_Justice_Agency
- Title Ms
- Is maker of ▶ Mia Analysa's User Profile
- Is primary Topic of ▶ Mia Analysa's User Profile



Response to Request for Information

To: Mia Analyssa
Intelligence Analyst
Massachusetts State Police
Massachusetts Fusion Center

From: Maury Copp
Police Detective
Baltimore Police Department
Baltimore Fusion Center

Date: October 24, 2009

Subject: Robert B. Guy
a/k/a Bobby Bad Guy

Re: Seeking information in relation to explosion of incendiary devices
at "No More War" rally, July 16, 2009

Special: USPER PII

This is a response to the Massachusetts State Police Request for Information on Robert B. Guy (a/k/a Bobby Bad Guy), DOB: 01/01/1960, last known residence: Baltimore, MD.

A Baltimore records check indicates a conviction of Subject that does not appear in NCIC (reason unknown). The Maryland criminal case system reflects that Subject was convicted for making and exploding small incendiary devices inside automobiles outside three Army recruiting stations. He was convicted pursuant to MD Public Safety Code 11-114(b) for the unlawful possession of explosives and sentenced pursuant to MD Public Safety Code 11-116(a)(1); he was convicted, given a five year sentence, served eighteen months, and remains on parole. Additional details are available regarding Bobby's arrest, conviction, and the conditions of his release from prison.

```
<?xpacket begin="" id="WSMOMpCehiHzreSzNTczkc9d"?>
<x:xmpmeta xmlns:x="adobe:ns:meta/" x:xmptk="Adobe XMP Core 4.2.1-c043 52.372728, 2009/01/18-15:56:37">
  <rdf:RDF
    xmlns:mdccl="http://dig.csail.mit.edu/2010/DHS-fusion/MD/rules/MdCodeComLaw_12_15_01_03_ONT#"
    xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"

    <rdf:Description rdf:about=""
      xmlns:dc="http://purl.org/dc/elements/1.1/"
      xmlns:tami="http://dig.csail.mit.edu/2009/AIR/air#"
      xmlns:cc="http://creativecommons.org/ns#"
      <dc:creator>
        <rdf:Seq>
          <rdf:li>Maury Copp</rdf:li>
        </rdf:Seq>
      </dc:creator>
      <dc:title>
        <rdf:Alt>
          <rdf:li xml:lang="x-default">Request for Information</rdf:li>
        </rdf:Alt>
      </dc:title>
      <tami:policy rdf:resource="http://dig.csail.mit.edu/2010/DHS-fusion/MD/rules/MdCodeComLaw_12_15_01_11.n3"/>
      <rdf:type rdf:resource="http://dig.csail.mit.edu/2010/DHS-fusion/MD/rules/MdCodeComLaw_12_15_01_03_ONT#Criminal_History_Record_Informati
      <cc:license rdf:resource="http://creativecommons.org/licenses/by/3.0"/>
      <mdccl:purpose rdf:resource="http://dig.csail.mit.edu/2010/DHS-fusion/MD/rules/MdCodeComLaw_12_15_01_03_ONT#Performance_of_function"/>
      <mdccl:verified_by rdf:resource="http://dig.csail.mit.edu/2010/DHS-fusion/MD/rules/MdCodeComLaw_12_15_01_03_ONT#Central_Repository"/>
    </rdf:Description>

    <rdf:Description
      rdf:about="http://dig.csail.mit.edu/2010/DHS-fusion/MD/CHRI/Guy_Robert_B#rbg"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema#"
      <mdccl:convicted_pursuant rdf:resource="http://law.justia.com/maryland/codes/gps/11-114.html"/>
      <mdccl:sentenced_pursuant rdf:resource="http://law.justia.com/maryland/codes/gps/11-116.html"/>
      <mdccl:maximum_allowable_sentence_length>20</mdccl:maximum_allowable_sentence_length>
      <mdccl:sentence_imposed>5</mdccl:sentence_imposed>
      <mdccl:has_custody_status rdf:resource="mdccl:Parole"/>
    </rdf:Description>
  </rdf:RDF>
</x:xmpmeta>
```

12.15.01.11

.11 Dissemination of CHRI--Criminal Justice Agency.

A. Subject to the provisions of Regulation .12B, the Central Repository and other criminal justice agencies shall disseminate CHRI, be it conviction or nonconviction criminal history record information, to a criminal justice agency upon request made in accordance with applicable regulations adopted by the Secretary. A criminal justice agency may request this information from the Central Repository or another criminal justice agency only if it has information:

- (1) In the performance of its function as a criminal justice agency; or
- (2) For the purpose of hiring or retaining its own employees and agents.

B. Dissemination Between Criminal Justice Agencies.

(1) A criminal justice agency may not disseminate CHRI to another criminal justice agency until the disseminating agency has requested and received from the Central Repository verification that the information to be disseminated is complete, accurate, and current.

(2) The criminal justice agency or the Central Repository shall verify the identity of the criminal justice agency to which the disseminating agency intends to provide the information.

(3) A criminal justice agency may satisfy the verification requirement through the use of an automated information system provided by the Department of Public Safety and Correctional Services.

(4) The Central Repository shall maintain a record or log of the request showing the:

- (a) Date the request was made;
- (b) Information to be disseminated;
- (c) Criminal justice agency receiving the information; and
- (d) Date of the dissemination.

(5) This section does not apply if the receiving criminal justice agency demonstrates to a responsible official of the disseminating criminal justice agency or the Central Repository that a delay in the receipt of information from the Central Repository will unduly impede necessary action by the requesting criminal justice agency or will violate or materially impair a substantive right of the person about whom the information is needed. However, the disseminating agency shall maintain a log of each dissemination under these conditions, showing the:

- (a) Date of dissemination;
- (b) Information disseminated;
- (c) Criminal justice agency to whom it was disseminated; and
- (d) Date of the dissemination.

C. When a request for the dissemination of CHRI is made by a criminal justice agency from another state, disseminations shall be limited to the purposes for which CHRI is disseminated to criminal justice agencies within that state.

D. A fee, as specified in Regulation .14 of this chapter, shall be charged for each request for access to CHRI for other than a criminal justice purpose.

Policy: AIR

File Edit View Help

```
:MD_12_15_01_11_s5 a air:Subjective;
  air:description ("Has " :R " demonstrated to " :S " that delay in receiving " :INFO " will violate or materially impair a substantive rig
  air:statement { :R mdcccl:demonstrate_violation_or_impairment_rights_of_subject :S }.

:MD_12_15_01_11 a air:Policy;
  air:rule :MD_12_15_01_11_Aa;
  air:rule :MD_12_15_01_11_Ab.

:MD_12_15_01_11_Aa a air:Belief-rule;
  rdfs:comment
    "Subject to the provisions of Regulation .12B, the Central Repository and other criminal justice agencies shall disseminate CHRI, be it
  air:if {
    :EVENT a mdcccl:Disseminate, mdcccl:Request;
      mdcccl:by :S;
      mdcccl:data :INFO;
      mdcccl:to :R;
      mdcccl:doc-data :DATA.
    :S log:semantics :SENDER.
    :R log:semantics :RECEIVER.
    :DATA log:semantics :DOC-DATA.
    :DOC-DATA log:includes { :INFO a mdcccl:Criminal_History_Record_Information }.
    :SENDER log:includes { :S foaf:organization_type mdcccl:Central_Repository }.
    :RECEIVER log:includes { :R foaf:organization_type mdcccl:Criminal_Justice_Agency }.
  };
  air:then [
    air:description ( :S " is " mdcccl:Central_Repository ".\n" :EVENT " is a dissemination request from " :S " to " :R "." );
    air:rule :MD_12_15_01_11_Ac
  ].

:MD_12_15_01_11_Ab a air:Belief-rule;
  air:if {
    :EVENT a mdcccl:Disseminate, mdcccl:Request;
      mdcccl:by :S;
      mdcccl:data :INFO;
      mdcccl:to :R;
      mdcccl:doc-data :DATA.
    :S log:semantics :SENDER.
    :R log:semantics :RECEIVER.
    :DATA log:semantics :DOC-DATA.
    :DOC-DATA log:includes { :INFO a mdcccl:Criminal_History_Record_Information }.
    :SENDER log:includes { :S foaf:organization_type "Criminal_Justice_Agency" }
```

- Each policy is represented as
 - rules and patterns in a policy file
 - definitions and classifications in an ontology file.

Policy: Tabulator

<p>MD 12 15 01 11 s5</p>	<p>description</p>	<p>Has R demonstrated to S that delay in receiving INFO will violate or materially impair a substantive right of the person about whom INFO is needed?</p>																																	
	<p>statement</p>	<p>R demonstrate violation or impairment rights of subject S</p>																																	
	<p>type</p>	<p>Subjective</p>																																	
<p>MD 12 15 01 11 Aa</p>	<p>if</p>	<table border="1"> <tr> <td>EVENT</td> <td>by</td> <td>S</td> </tr> <tr> <td></td> <td>data</td> <td>INFO</td> </tr> <tr> <td></td> <td>doc data</td> <td>DATA</td> </tr> <tr> <td></td> <td>to</td> <td>R</td> </tr> <tr> <td></td> <td>type</td> <td>Disseminate Request</td> </tr> <tr> <td>S</td> <td>semantics</td> <td>SENDER</td> </tr> <tr> <td>R</td> <td>semantics</td> <td>RECEIVER</td> </tr> <tr> <td>DATA</td> <td>semantics</td> <td>DOC DATA</td> </tr> <tr> <td>DOC DATA</td> <td>includes</td> <td>INFO type Criminal History Record Information</td> </tr> <tr> <td>SENDER</td> <td>includes</td> <td>S organization type Central Repository</td> </tr> <tr> <td>RECEIVER</td> <td>includes</td> <td>R organization type Criminal Justice Agency</td> </tr> </table>	EVENT	by	S		data	INFO		doc data	DATA		to	R		type	Disseminate Request	S	semantics	SENDER	R	semantics	RECEIVER	DATA	semantics	DOC DATA	DOC DATA	includes	INFO type Criminal History Record Information	SENDER	includes	S organization type Central Repository	RECEIVER	includes	R organization type Criminal Justice Agency
EVENT	by	S																																	
	data	INFO																																	
	doc data	DATA																																	
	to	R																																	
	type	Disseminate Request																																	
S	semantics	SENDER																																	
R	semantics	RECEIVER																																	
DATA	semantics	DOC DATA																																	
DOC DATA	includes	INFO type Criminal History Record Information																																	
SENDER	includes	S organization type Central Repository																																	
RECEIVER	includes	R organization type Criminal Justice Agency																																	
	<p>then</p>	<p>description</p> <p>S is Central Repository . EVENT is a dissemination request from S to R .</p> <p>rule MD 12 15 01 11 Ac</p>																																	
	<p>type</p>	<p>Belief rule</p>																																	
	<p>comment</p>	<p>Subject to the provisions of Regulation .12B, the Central Repository and other criminal justice agencies shall disseminate CHRI, be it conviction or nonconviction criminal history record inform agency upon a request made in accordance with applicable regulations adopted by the Secretary</p>																																	

MD 12 15 if EVENT by S

For info, contact: [krw at mit.edu](mailto:krw@mit.edu)
K. Krasnow Waterman



Simple Compliance Answer

Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172

Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172

Why?

Type **RDFDocument**

Find All

- Can use address line commands
- Running cwm
 - Forward chaining reasoner
 - Written in python

Detailed Justification

Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172

Transaction is compliant with Massachusetts General Law, Part I, Title II, Chapter 6, Section 172

More Information Start Over

Compliance additionally requires that release of Request for Information federal law, as required by MGL 6-172, Para. 6, Sent. 1(b), Cl. 3.

- Truth Maintenance System (TMS)
- Tracks dependencies
- Retains premises leading to conclusion
- Retains logical structure of a derivation
- Permits automatically generated explanations
- Pressing the “Why?” button reveals each dependency & all associated premises

Premises:

http://dice.csail.mit.edu/xmpparser.py?uri=http://dig.csail.mit.edu/2010/DHS-fusion/MA/documents/Fake_MA_Request.pdf	semantics	Request for Information about Robert B. Guy	license	http://creativecommons.org/licenses/by/3.0/
			policy	http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172.n3
			owner	http://dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa.n3
			Name	Robert B. Guy
			Keywords	
			Producer	Microsoft® Office Word 2007
			location	Cambridge
			Create Date	2010-02-24T14:46:51-05:00
			Metadata Date	2010-02-24T14:47:25-05:00
			Modify Date	2010-02-24T14:47:25-05:00
			Document ID	uuid:3eed3dd5-b0bb-8e40-8400-7f17dd8bda38
			Instance ID	uuid:be1e9556-821c-724b-be6a-892ad8b51d91
			Marked	True
			Creator	n?

“Lawyer Pane”

▼ http://dice.csail.mit.edu/dhs_air.py?by=http://dig.csail.mit.edu/2010/DHS-fusion/MA/profiles/MiaAnalysa#me&to=http://dig.csail.mit.edu/2010/DHS-fusion/US/DHS/profiles/FredAgenti#me&data=http://dig.csail.mit.edu/2010/DHS-fusion/MA/documents/Fake_MA_Request_core10.pdf&rulesFile=http://dig.csail.mit.edu/2010/DHS-fusion/MA/rules/MGL_6-172_core10.n3

▼ Issue:

Whether the [transactions](#) comply with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#).

▼ Rule:

Rule(s) is/are specified in the [policy file](#).

▼ Analysis:

- [Request for Information about Robert B. Guy](#) is a dissemination by [Mia Analysa](#) to [Fred Agenti](#), designed to comply with [MGL 6-172, Para. 1, Sent. 1a](#).
- [Request for Information about Robert B. Guy](#) contains [Criminal Offender Record Information](#), and [Fred Agenti](#) is a member of the [Public Safety](#), [Sent. 1a](#).
- Compliance additionally requires: [Fred Agenti](#) is [performing Criminal Justice Duties](#) and [Request for Information about Robert B. Guy](#) limited to data [necessary for Fred Agenti's Criminal Justice Duties](#), as required by MGL 6-172, Para. 1, Sent. 2, Cl. 1:
- Compliance additionally requires that [Fred Agenti](#) is certified by the board as qualified for access, as required by MGL 6-172 Paragraph 2.
- Compliance additionally requires: The agency to which [Mia Analysa](#) belongs shall maintain, for such period as the board shall determine, a listing of the agencies or individuals to which it has released or communicated such information, as required by MGL 6-172, Para. 4, Sent. 1.
- Inquiry is about Robert B. Guy and is based on a personally identifying characteristic, as required by MGL 6-172 Para. 5, Sent. 1, Cl. 2.
- [Fred Agenti](#) performs function [investigation](#).
- Compliance additionally requires that release of [Request for Information about Robert B. Guy](#) would not violate any other provisions of state or federal law, as required by MGL 6-172, Para. 6, Sent. 1(b), Cl. 3.

▼ Conclusion:

The transaction - [Transaction](#) is compliant with [Massachusetts General Law, Part I, Title II, Chapter 6, Section 172](#)

- Format is modeled after IRAC
- Issue, Rule, Analysis, Conclusion
- First year law school technique for answering hypotheticals
- Working towards making output easier to read for lawyers, policy analysts, and line of business



Statute Text

- MGL § 6-172
 - <http://www.mass.gov/legis/laws/mgl/6/6-172.htm>
- MCCCL 12.15.01.11
 - <http://www.dsd.state.md.us/comar/comarhtml/12/12.15.01.11.htm>
- 5 USC § 552a (Privacy Act)
 - http://www.law.cornell.edu/uscode/5/usc_sec_05_00000552---a000-.html

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