A Decentralized Model for Information Flow Control Andrew C. Myers and Barbara Liskov, 1997

September 23, 2015

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The result of this paper is a model for controlling information flow: Decentralized Label Model (DLM).



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It is not:

► Access Control (inter-application communication)



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It is not:

- Access Control (inter-application communication)
- ► Authentication, Authorization, Confidentiality, etc.



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It is not:

- ► Access Control (inter-application communication)
- ► Authentication, Authorization, Confidentiality, etc.

This means that DLM will not ensure:



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Definition

It is not:

- ► Access Control (inter-application communication)
- Authentication, Authorization, Confidentiality, etc.

This means that DLM will not ensure:

secure communication between applications



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Definition:

It is not:

- ► Access Control (inter-application communication)
- ► Authentication, Authorization, Confidentiality, etc.

This means that DLM will not ensure:

- secure communication between applications
- limited application access to data once released



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Decentralized Label Model

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► Information Flow Control



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It is:

- ► Information Flow Control
- ▶ Decentralized



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- ► Information Flow Control
- Decentralized

This means that DLM will help ensuring:



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3 It is:

- ► Information Flow Control
- Decentralized

This means that DLM will help ensuring:

not releasing sensitive data



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3) It is:

- ► Information Flow Control
- Decentralized

This means that DLM will help ensuring:

- not releasing sensitive data
- ► not implicitly releasing sensitive data



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lt is:

- ► Information Flow Control
- Decentralized

This means that DLM will help ensuring:

- not releasing sensitive data
- ► not implicitly releasing sensitive data
- not giving away hints of inner workings



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 $\ensuremath{\mathsf{DLM}}$ differs from previous solutions as it is:



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DLM differs from previous solutions as it is:

decentralized



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DLM differs from previous solutions as it is:

- decentralized
- ▶ less restrictive of allowed computations



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Questions?

