

# Identity Management

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## Identity Management Evolution of the Idea

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# Agenda

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- Introduction
- Evolution
  - Webs of Trust
  - Public Key Infrastructure
  - OpenID
- Software project - Reputation Database
- Conclusions





# Introduction

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- What is a digital identity?
  - Bond between real and electronic worlds
- How can we verify it?
  - Centralized
    - Centralized authority
  - Decentralized
    - Distributed authority





# Identity

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- How do you verify yourself?
  - “Something I know.” – *a password*
  - “Something I am.” – *a fingerprint*
  - “Something I have.” – *a key card*
- Credentials
  - Verification of my claims
- Resource authorization
  - per-resource identity
    - club cards
  - global identity
    - driving license

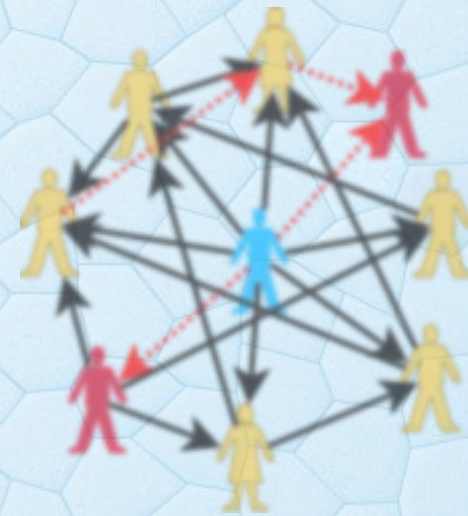




# Evolution – Webs of Trust

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- Application of real world situations
  - Direct approach
- Easy to understand and implement
- Non-boolean/Fuzzy trust relationships
- Separated federations problem
- Doesn't scale well





# Evolution – Public Key Infrastructure

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- Centralized
  - Feature & disadvantage
- Highly secure
- Scalable
  - OCSP responders
- Complex implementation





# Evolution – OpenID

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- Single identity
- Single Sign On
- Unified standard
- I-Names
  - =personal
  - @organization
    - @onoclea\*ceo
    - @onoclea\*billing
  - I-Numbers - xri:///!1234.1234.abcd.abcd
- Attribute Exchange
  - Account provisioning





# Reputation Database – Software Project

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- Trust Visualization and Management Tool
- Features
  - Visualizes effective trust characteristics
  - Gathers trust bonds
  - Studies trust relations
- Web Application
  - OpenID Enabled





# Reputation Database – Screen shot #1

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## REPUTATION DATABASE

Quick links: [home](#) | [account](#) | [entrusteds](#) | [users](#) | [admin](#)

### Details for Entrusted001

Name	Entrusted001
URI	<a href="http://entrusted001.tld">http://entrusted001.tld</a>
Added by	pjs
Added on	2008-02-20
Last modified	2008-02-24

### Statistics

Number of trusts	257
Mean trust level	49.6887159533
Median trust level	48.00228
Standard deviation	29.8622552101

### Distribution

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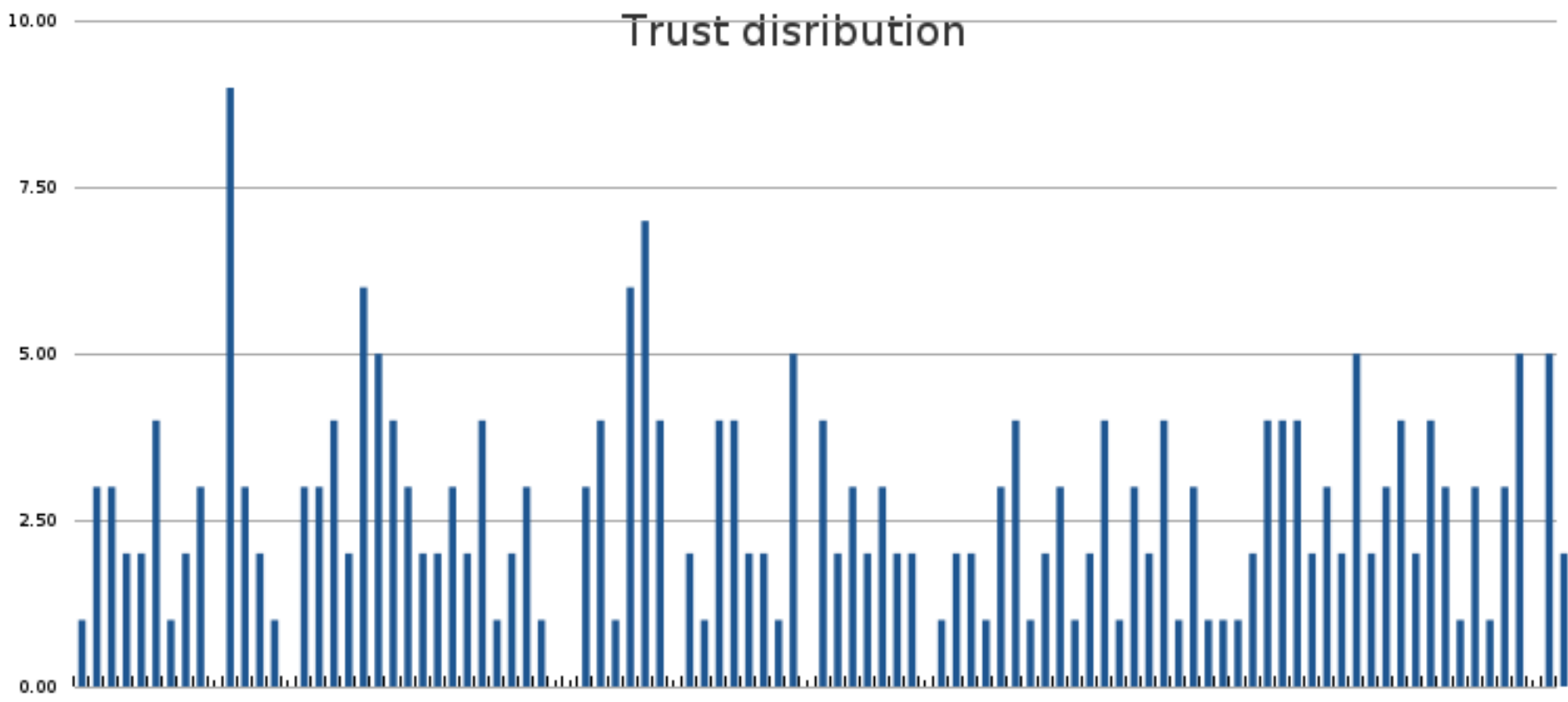


# Reputation Database – Screen shot #2

Standard deviation: 29.6622552101

## Distribution

### Graphs





# Conclusions

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- Different technologies for different situations
  - Small/Closed groups – Webs of Trust
  - Corporate environment – PKI
  - World Wide Web – OpenID w/ i-Names
- OpenID – an open and extensible framework
- Standards
  - Interoperability
  - Unification





# Questions

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Are there any questions?





The End

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**Thank you for your attention!**

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