

IDESG

Use Case Workshop



OVERVIEW

Goal of the Workshop



- The Use Case Workshop is intended to:
 - advance the use case development activity,
 - increase IDESG involvement, and
 - prepare for 2013 use case accomplishments

Workshop Agenda



10:15-10:45	Overview, status, & introduction of use cases
10:45-11:15	Use case criteria
11:15-11:45	Use case walkthrough & method demonstration
11:45-12:45	Lunch
12:45-2:00	Breakout: Use case analysis
2:00-2:30	Report out from the exercise
2:30-2:45	Near term use case exercise
2:45-3:15	Identification of near term activities

What is a Use Case?



- Different for engineers than for business owners, users, or other species
- I like this one:
 - a methodology used in system analysis to identify, clarify, and organize system requirements
 - the use case is made up of a set of possible sequences of interactions between systems and users in a particular environment and related to a particular goal
- Another says “scenarios representing mission or stakeholder goals”

Use case characteristics



- Organizes functional requirements
- Models the goals of system/actor (user) interactions
- Records paths (called *scenarios*) from trigger events to goals
- Describes one main flow of events (also called a basic course of action), and possibly other ones, called *exceptional* flows of events (also called alternate courses of action)
- Is multi-level, so that one use case can use the functionality of another one.

Purpose of Use Cases

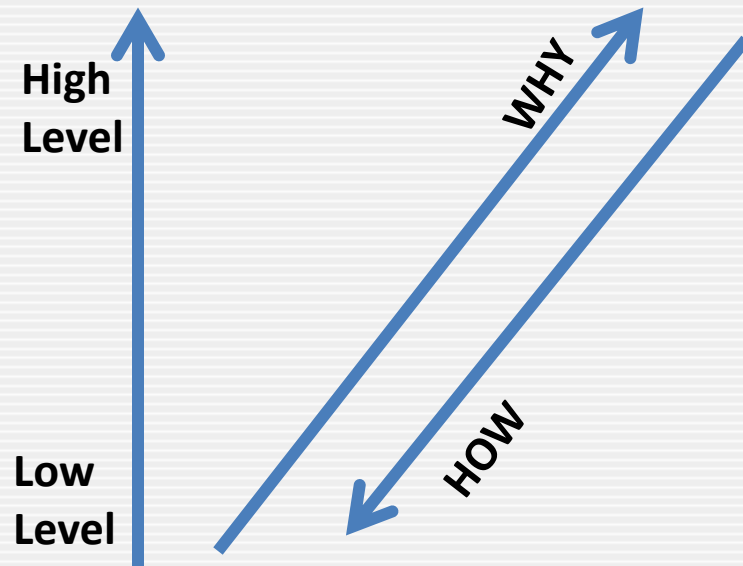


- Basis for the development of other work products - provides context
- Method of eliciting requirements
- Helps define the problem(s) we are trying to solve
- “Determine commonalities so as to be able to design services”
- Guide our collective efforts - keep us aligned

Levels



- Target - “scenario” level: What & Why



- Once defined, progressively lower level use cases can be derived as needed
- Lower levels may have a specific focus (e.g., privacy, security, user experience,...)
- Lower levels may also address “How”

(diagram inspired by Writing Effective Use Cases, Alistair Cockburn)

What has been done so far

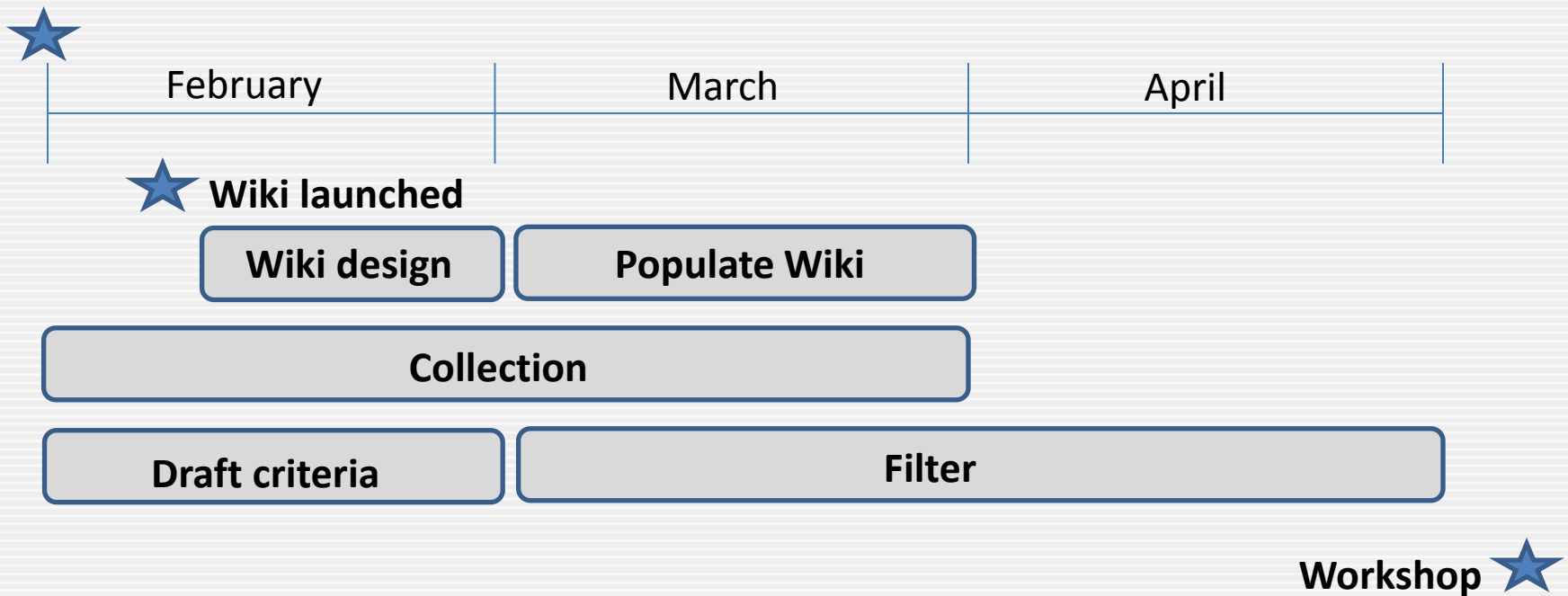


- Use case template developed
- Draft list of illustrative use cases
- Began to identify sources of existing use cases
- Generated sample use cases
- Began collection effort
- Setup joint Use Case AHG
- Launch Use Case Wiki
 - 70+ use cases submitted to date
- Draft criteria set

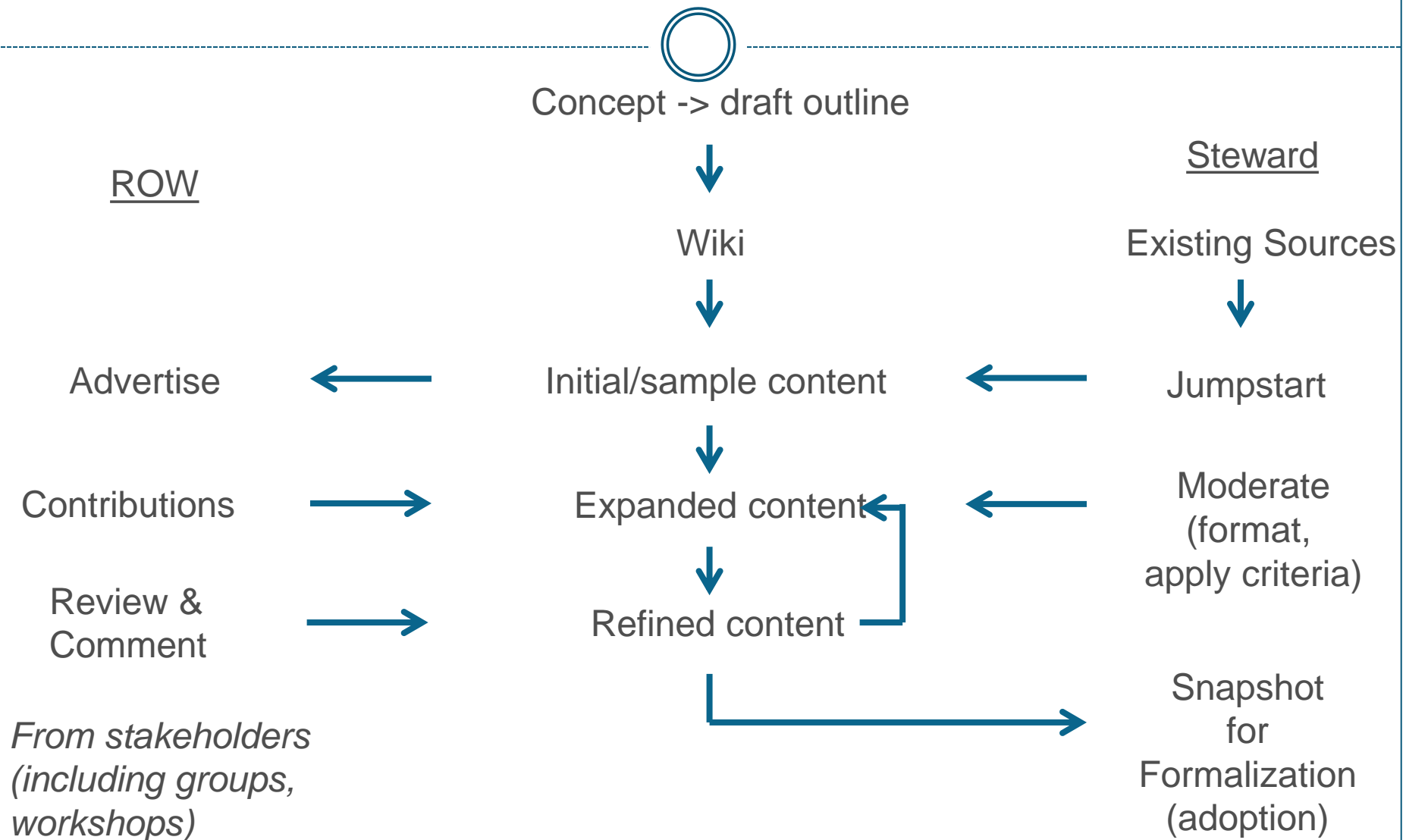
Feb plenary proposal



- Near term timeline



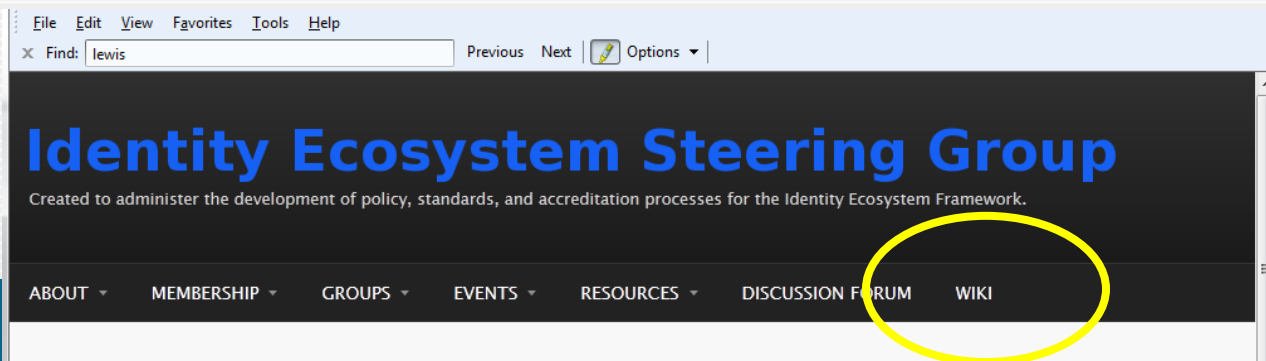
Collaboration Process



Use Case Wiki



- Method of collecting and refining use cases
 - Use case catalog
 - Template embedded (preferred) but not enforced
- Any logged-in IDESG member may ADD a use case to the Wiki
- Anyone with an IDESG login (members & non-members) may comment on a use case



Use Case Wiki



- Demonstration:
https://www.idecosystem.org/wiki/Use_Cases

Use case template



- Provided for consistency & completeness
- Preferred format
- Will accept other formats (free text user stories), but ...
 - Don't have the resources to convert them ☹️
- Process graphic desirable
 - Must do as 'embedded file'

Use Case Template



Element	Description
Title	Name the use case here. Use an action verb name to describe the use case, not including the primary actor name, but identifying any subject actors. Verb modifiers may be used to refine the use case. Example: authenticate to system with trusted identity
Description	Brief description of the use case and its context.
Category	Describe what category the use case belongs to. (Categories of Use Cases slide for a list of categories and their descriptions).
Contributor	Identify the person or organization that contributed the use case, including their stakeholder group.
Actors	Identify actors associated with the use case. Provide the primary actor first. Actors can include people, roles, organizations, software processes or services or other objects or entities.
Goals	A general description of the intended outcome of the use case from the perspective of the primary actor, including any artifacts created. This section may address risks and threats related to the use case and how they may be mitigated.
Assumptions	<p>A listing of any assumptions made about the use case including its actors, services, environment, etc.</p> <p>Pre-conditions – Conditions that must be met for to the use case being possible</p> <p>Post-conditions – Any assumed actions that take place upon completion of the use case</p>

Use Case Template



Element	Description
Requirements	A listing of any requirements that must be met, these can be references to published standards and guidelines or requirements stated by the contributor. Examples : FIPS 201, ISO 27001, etc.
Process Flow	A text or graphic description of the overall process flow of the use case.
Success Scenario	Describe the successful execution of the use case here as a sequence of numbered steps. If multiple paths or multiple outcomes are permitted to occur, they should all be documented.
Error Conditions	Describe errors that can take place, considering what can go wrong at each step of the success scenario. For each error, describe how the actors should handle the results.
Relationships	Identify other use cases to which this use case is related to (i.e., an extension of/to).
Citations	Provide any citations to additional information or references.

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USE CASE CRITERIA

Criteria discussion



- **Goal:** Agree upon an initial set of use case criteria
- We will start by introducing the purpose of the criteria
- A proposed starting point set of criteria is provided
- Interactive discussion to refine this set
- Questions to be answered:
 - Is this the right set of criteria?
 - Are any criteria missing?
 - Do any of these need to be further refined?

Uses for the criteria



- Provide guidance to use case developers/submitters
 - Improve the overall quality of the use cases
- Apply criteria for selection of use cases for “intermediate uses”
 - Example: Workshop examples
- #1 - Apply to selection of use cases for inclusion in an IDESG deliverable
 - Initial set of published “IDESG use cases”
 - ✦ Note: This deliverable is intended to be expanded over time - we just need an initial set to begin to guide our work.

Use Case criteria/value



- Objective: Make the use cases themselves a valuable tool.
 - What set of criteria will help us to do this?
 - How can they be applied to help us do this?
- What suggestions, comments, additions do you see are needed in the list or process?

Proposed Criteria



- **Relevance**
 - Related to and supportive of the goals of the identity ecosystem
- **Completeness**
 - Provide information mapping to items of the template
- **Level**
 - Functional level (not implementation specific)
- **Diversity**
 - As a set, cover a good-cross section of populations and functionality

Proposed Criteria (cont'd)



- Diversity
 - Include edge cases, underserved communities
 - Address high, med, and low risk scenarios
 - Focus on both the adoption of existing solutions as well as the creation of new capabilities
 - Address the perspectives of all participants - RPs, IDPs, and end-users

Proposed Criteria (cont'd)



- Guiding Principles
 - How they address the 4 NSTIC guiding principles
 - Many use cases are expressed at an abstract level and may be difficult to assess without implementation details. The purpose of this workshop in those cases is to provide guidance and consideration as these solutions are developed so that the results will adhere to the GPs.
 - Criteria may not be able to be applied directly to the use cases.

Criteria Discussion



- Comments from the floor
- Summary & next steps

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USE CASE WALKTHROUGH
&
ANALYSIS METHOD DEMONSTRATION

Introduction of Use Cases



- Complete list (70+) on Wiki
 - Various levels of refinement
- 4 selected for exploration
- 8 more selected for the breakout exercise

Introduction of Use Cases



Use case name	General Category	Brief Description
Authenticate Person Use Case	Authentication	A Claimant browses to a website which requires authentication. The web site provides the Claimant the ability to authenticate their identity using an Identity Service Provider of the Claimant's own choice through the use of privacy enabling and standards based protocols.
Financially Underserved Use Case	Identity Management	Financial Institution as Electronic Identity Provider for the Financially Under-served including the Un and Under-Banked. Provides a "persona" example, Julia, who interacts with bank and merchants.
PIV-I Enrollment for Educational Institutions Use Case	Enrollment	Educational institution as an identity provider.
Remote Electronic Identity Proofing Use Case	Enrollment	Remote electronic identity proofing is emerging as a valuable component within the scope of identity proofing for digital identity credential issuing for many sectors.

Introduction of Use Cases



Use case name	General Category	Brief Description
Persona Attributes	Identity Management	An "attribute" is a detectable property or characteristic of an entity (person, device, organization, code, or agent). An acceptable collection of attributes is necessary to identify an entity in one or more of its personas. Therefore attributes must be acceptably trustworthy to a relying party in order to provide them with a trusted identity.
Access Age Restricted Content Use Case	Attribute Verification	Enable people to access adult material.
IRS Identity Theft	Security Assurance	This use case helps the IRS determine whether a taxpayer's Social Security Number is being used fraudulently in a tax return
Medicare Patient logs into MyMedicare.gov site to access their records	Authentication	Medicare Patient logs into MyMedicare.gov site to access their records
Privacy facilitated by User Agent Use Case	Authentication	Establish an identity with a relying party that releases only information explicitly authorized by an individual user.

Introduction of Use Cases



Use case name	General Category	Brief Description
Publicly Discoverable ePayment Address(es)	Enrollment	Describes an enrollment process for an ePayment address system
Revocation of Delegated Authentication Use Case	Identity Management	Allow one person to revoke access rights to their own identity that have been assigned to another person.
Secure Anonymous Digital Identity	Privacy	Create an anonymous crypto "Core Identifier" key unique to you through immutable binding to your real-world "Core Identity" and which cannot be reverse-engineered to reveal your real-world identity but which you and only you can then use as your user-centric online identifier to create as many online personas as you wish. Specific examples: Game Avatar and PlayNym as Pseudonymous Identifiers

Use Case Walkthrough



- 4 use cases selected for initial analysis
 - Authenticate Person Use Case
 - Financially Underserved Use Case
 - PIV-I Enrollment for Educational Institutions Use Case
 - Remote Electronic Identity Proofing

Authenticate Person Use Case



- Mostly abstract use case - specifies that it is a human being authenticated in a web browser context.
- User centric - a human interacting with identity solutions
- Actors:
 - Claimant - human user desiring access to a web resource
 - Identity Service Provider - performs primary authentication of the Claimant's credentials
 - Relying Party - seeks a level of assurance about the identity of the Claimant

Financially Underserved Use Case



- Financial Institution as Electronic Identity Provider for the Financially Under-served including the Un and Under Banked
- Presents what the UX crowd calls a Persona - a sample person to consider as a user within the identity ecosystem
 - Julia - unemployed head of household, seeks a reliable online identity
 - Financial Institution - verifies Julia's identity information and issues her credentials, with biometric data collected under informed consent and privacy safeguards

PIV-I Enrollment for Educational Institutions

Use Case



- Educational Institution as a PIV-I Electronic Identity Provider
- Actors
 - Educational institution as an identity provider
 - Educational institution as a relying party
 - Claimant is a human student desiring to acquire an electronic identity
 - Subscriber is human student who has successfully been issued an electronic identity

Remote Electronic Identity Proofing Use Case



- A scenario in which Identity Proofing is performed by a trusted verification provider on behalf of the Registration Authority.
- Actors
 - Registration Authority (RA) - a human with the trusted role and authority to authorize credentials for Applicants
 - Identity Verification Provider (IVP) - a human with a trusted relationship to an RA, who gathers and verifies Applicant's identity data
 - Applicant (A) - a human with an antecedent relationship with the RA
 - Public Applicant (PA) - a human without an antecedent relationship with the RA
 - Mobile cellular phone, smart phone, PDA, I-Pad, PC, or portable PC device- these devices can mediate the use case on behalf of the human actors above.

Purpose of the Breakout Exercise



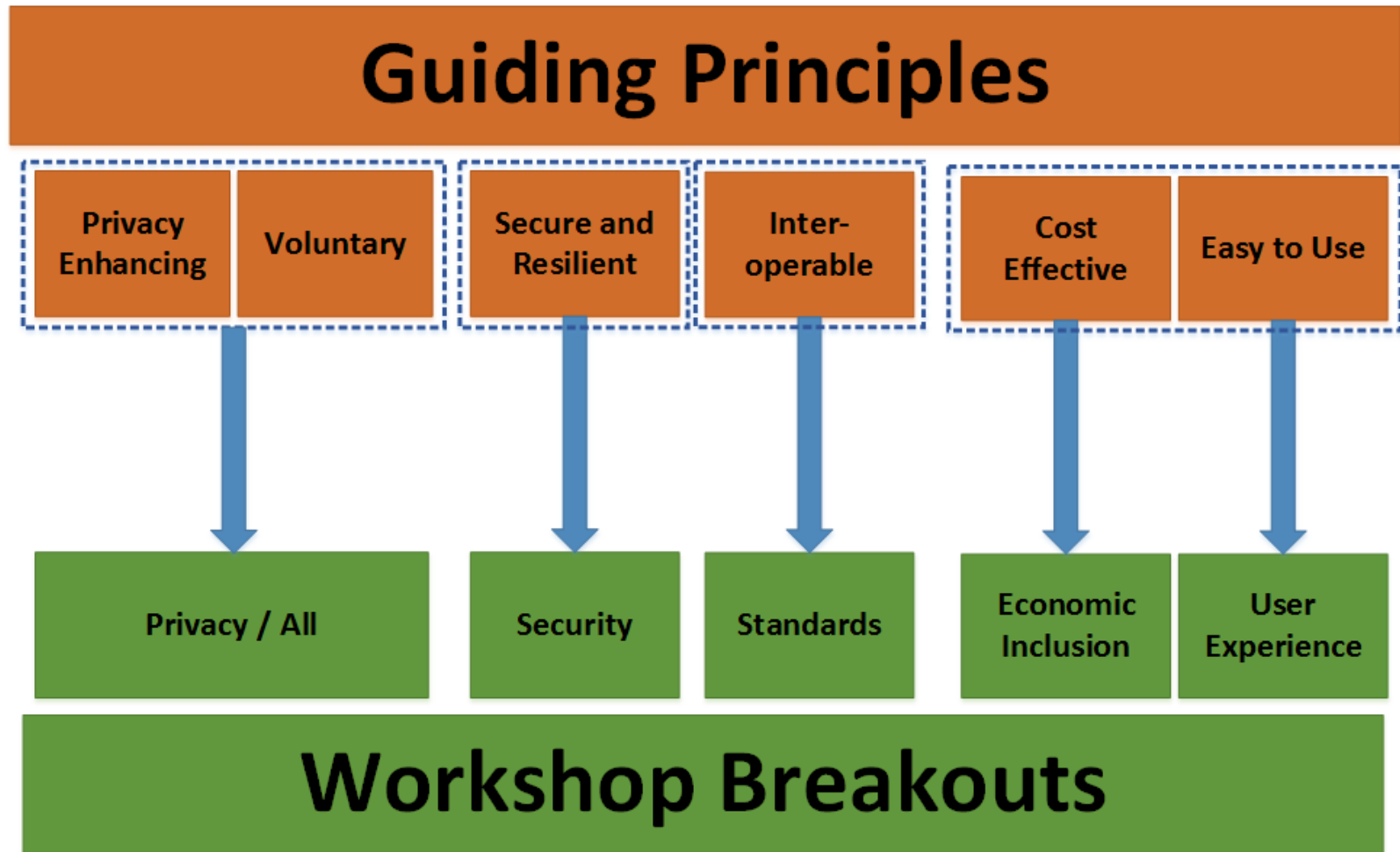
- Familiarization with the use cases, content, format, and utility
- Demonstrate collaboration on the use cases
- Jumpstart ongoing committee analysis activities
- This is primarily a learning activity
 - Learning how to work with the use cases and apply them to your work area
- Secondly, outputs will be used to:
 - Feedback to the contributors
 - Starting point for further analysis by the groups

Breakout Exercise



- Analysis exercise
 - One use case to be analyzed by all 5 breakouts (focus areas)
 - One use case to be selected from list
- Each breakout will analyze the use cases from their unique perspective
 - Identify considerations
 - Derive requirements
 - Suggest improvements
 - Note observations
- Report out

GP Mapping to Breakout Topics



Example Analysis Method

Identify Considerations



- Authenticate Person Use Case
 - Security considerations
 - ✦ Error conditions should include “authentication by unauthorized entity”.
 - UX considerations
 - ✦ Cannot evaluate in the abstract, solutions should follow UX principles and be evaluated once implemented.
 - Privacy considerations
 - ✦ ISP obtains vast logs about every RP that subscribers log in to - what are the requirements for privacy protection of that information?

Example - Standards Analysis

Authenticate Person Use Case



1. Identify considerations for this use case for your session topic.

- Standards will be needed to support interoperability and security.
- Standards requirements will differ depending on LOA required.
- The need for pseudonymity may also affect standards selections.

Example - Standards Analysis



2. Identify any topic area requirements that can be derived from this use case.

Candidate standards:

- Interface standards: SAML, OpenID/OpenID Connect
 - Gap (?): standard interface for online/remote identity proofing
- Process and token standards: SP 800-63-1, ISO/IEC 29115
- Cryptographic standards: FIPS 140

Example - Standards Analysis



3. Suggest ways that this use case could be improved.

- It sounds like the credential has been issued, but that user interaction is not required to present the credential; however, this intent could be made more clear.
- User chooses the 'identity service provider of their choice'. Note that there is also a dependency that the RP support that service provider/credential (or the federation they are a part of).

Example - Standards Analysis



4. Other observations about the use case.

- This is a rather general use case that is made more specific due to the need to minimize user interaction, privacy features, and support for pseudonymity.
- Could be leveraged by other use cases.

Breakout Logistics



Breakout (Topic)	Facilitator(s)	Room #
Security	Adam Madlin Paul Laurent	
Privacy	Jim Elste	
User Experience	Judith Fleenor	
Standards	Jamie Clark Kim Little	
Economic Inclusion	Mary Ruddy Ann Racuya-Robbins	

Breakout: 12:45 – 2:00

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NEAR TERM USE CASE ACTIVITY

Near Term Use Case Exercise

Round Table Activity



- Identify use cases that will best:
 - Advance the work of the IDESG near term
 - Be seen as a major contribution to identity ecosystem stakeholders / general public
- Choose from list or describe new use case
- Describe why and how it meets these goals

Use Case Value



- How do you see your work group using or finding value in having these use cases?
 - How could they provide value to your work plan/work products?
- What suggestions, comments, additions do you see are needed in the process?

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IDENTIFICATION OF NEAR TERM ACTIVITIES

Goal



- Identify (at least) one major accomplishment associated with the use case activity that:
 - Can be completed in 2013
 - That shows forward movement
 - That is useful to the IDESG and its stakeholder community
 - Is worthy of announcement

Candidate Accomplishments



- Publish an initial set of IDESG use cases
 - Formal work product
 - Benefit: Guide our work in 2014
- “Solve” one wildly important use case
 - Implement the elements necessary to support this use case
 - Benefit: Tangible contribution to online trust
- Others?

Suggestions from the Floor



- (Capture suggestions)

Parting Solicitation



- Use case development is an ongoing IDESG activity
- Please consider, as a group or individual:
 - Contributing one or more use cases to the Wiki
 - Reviewing existing use cases and providing constructive comments
 - Considering these use cases when developing other IDESG materials
- Want to be more involved? Join the Use Case AHG.
 - AHG meets weekly (Wed, 3pm ET)