draft-levin-simple-interdomain-reqs-00

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Inter-domain Requirements for exchanging of Presence Information

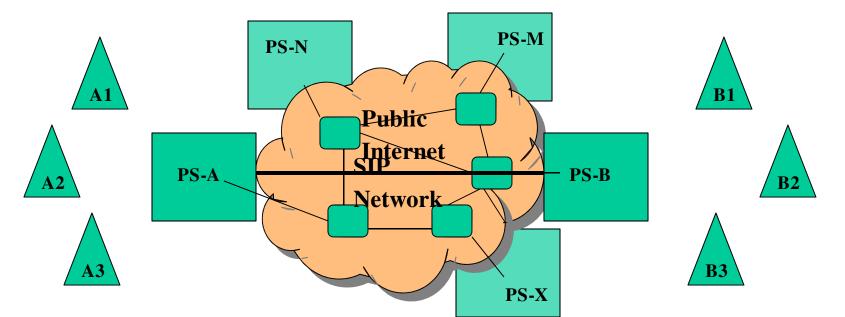
- Motivation
- Scope
- Identified Areas
 - PS-to-PS logical connection
 - User-User relationships
 - Presence information optimizations
- Next Steps

Motivation

- We want to use SIMPLE as the link for interconnecting presence domains on global scale
- We believe that SIMPLE "can do it" because:
 - It inherently uses SIP global routing infrastructure
 - It is extensible on SIP level
 - It carries extensible XML bodies for Presence application
- SIMPLE community has gained implementation and deployment experience and this is the right time to apply it to this work

Scope of Inter-domain Presence Interface

The interface between two presence servers (PS) that are responsible for all aspects of presence information on behalf of their users and under their consent



PS-to-PS Logical Link

- Standardization of mutual TLS procedures for SIMPLE inter-domain links
- Capabilities/Options Exchange
- Compression
- More?
 - Throttling/congestion control between PS servers.
 Examples include negotiation of a maximum message rate and resolving the HOL blocking issues with TCP
 - Etc.

User-to-User

- Explicit Domain Identifier
- Meaningful User Identifier (e.g. not a random global identifier)
- Per user granularity
- Asymmetric user relationships
- Optional peer-to-peer authentication
- Optional peer-to-peer presence info encryption
- User in one domain need to be able to allow and disallow its presence visibility to all users in a specific other domain

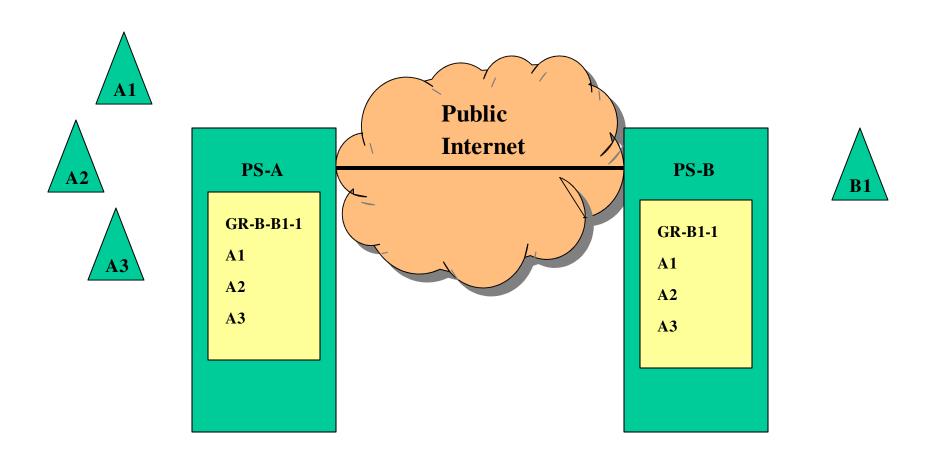
Presence Info Optimizations: New Functionality

- Request for granting presence access without "subscribing" to it
- Request for presence status query in present time only without "subscribing"
- Request for searching for a list of presenceenabled users (by regular expression?)

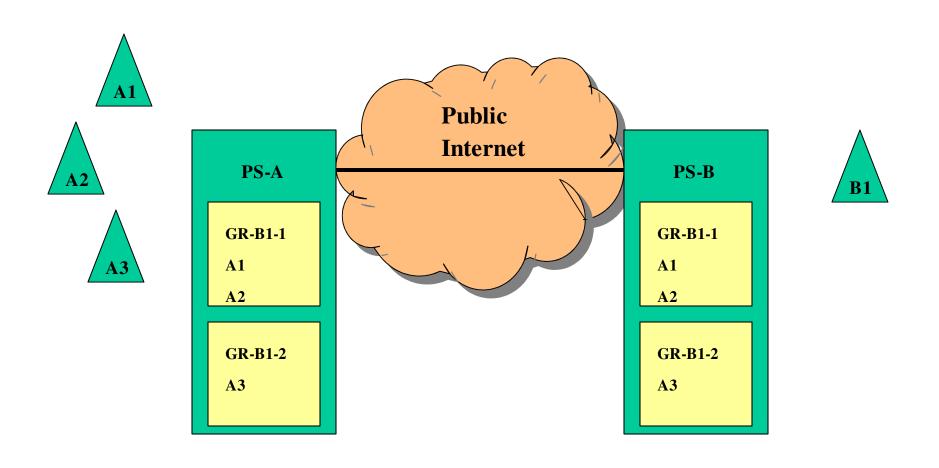
Presence Info Optimizations: Batching of Requests

- Request for presence access from a single watcher to an arbitrary ad-hoc list of presentities in a single operation
- Presence query request from a single watcher to an arbitrary ad-hoc list of presentities in a single operation
- Subscription/Unsubscription to presence request from a single watcher to an arbitrary ad-hoc list of presentities in a single operation

Presence Info Optimizations: Grouping Watchers for Sharing Presence Information



Presence Info Optimizations (cont.): Multiple Groups of Watchers



Presence Info Optimizations (Cont.): Grouping Watchers - Summary

- Presentity assigns a different set and/or level of its presence information for each group of watchers
- Real time presence information is being communicated for a pre-defined group of watchers
- Domain MAY support "a single watchers group per remote presentity". This allows for most efficient inter-domain link usage
- Watchers' domain PS MUST not inspect the content of presence information because it MAY be encrypted end-to-end

Next Steps

- Identify priorities based on follow up discussion
- Continue the work towards becoming a SIMPLE WG item