

PSI Meeting Minutes 8/28/2002

Thanks to Jerry Thrasher for providing the minutes
I think we should nominate Jerry for secretary ☺

I. Attendees.

Please let Alan know about corrections to the list

Representative	Company	Attendance		E-Mail
		6/26/02	8/28/02	
Bob Acosta	AGFA Monotype		X	roda.costa@agfamonotype.com
Lee Farrell	Canon Dev. Americas	X	X	leefarrell@cda.canon.com
Shigeru Ueda	Canon		X	ueda.shigeru@canon.co.jp
Atsushi Uchino	Epson	X	X	uchino@eitc.epson.com
Fumio Nagasaka	Epson	X	X	nagasaka.fumio@exc.epson.co.jp
Koihiro Ota	Epson	X		ota.koihiro@exc.epson.co.jp
Yiruo Yang	Epson		X	yiruo.yang@eitc.epson.com
Jim Sommer	Granite Systems	X		sommer@granitsystems.com
Ron Bergman	Hitachi		X	ron.bergman@hitachi-hkis.com
Michael Wu	Heidelberg			
Alan Berkema	Hewlett Packard	X	X	alan_berkema@hp.cm
Bob Taylor	Hewlett Packard	X	X	robertt@vcd.hp.com
Dave Hall	Hewlett Packard	X	X	dhall@hp.com
Jim Bigelow	Hewlett Packard		X	jim_bigelow@hp.com
Shivaun Albright	Hewlett Packard		X	shivaun_albright@hp.com
Harry Lewis	IBM	X	X	harryl@us.ibm.com
Mark Hamzy	IBM	X		hamzy@usi.bm.com
Stuart Rowley	Kyocera Mita	X		stuart.rowley@ktd-kyocera.com
Don Wright	Lexmark	X	X	don@lexmark.com
Gerrie Thrasher	Lexmark		X	thrasher@lexmark.com
Dave McLaughlin	Microsoft		X	davemac@microsoft.com
Mike Fenelon	Microsoft		X	mfenelon@microsoft.com
Bill Wagner	NETsilicon	X	X	wwagner@netsilicon.com
Jeff Christenson	Novell		X	jrchristenson@novell.com
Ted Tronson	Novell	X	X	ttronson@novell.com
Elliott Bradshaw	Oak Technology		X	ElliottBradshaw@oaktech.com
Norbert Shade	Oak Technology	X		norbertshade@attbi.com
Gail Songer	Peerless	X	X	gsonger@peerless.com
Cameron Bradeur	Ricoh		X	cameron.brdaeur@richo-usa.com
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Junichi Ota	Ricoh		X	ohat@ussj.ricoh.com
Kenichi Takeda	Ricoh		X	takeda@isp.rp.ricoh.co.jp
Craig Whittle	Sharp Labs America	X		cwhittle@sharplabs.com
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Amir Shahindoust	Toshiba	X		amir.shahindoust@tabs.toshiba.com
Peter Zehler	Xerox	X	X	pzheler@crt.xerox.com
Kirk Ocke	Xerox	X		kocke@crt.xerox.com

II. Review and approve minutes from June Meeting. (Done)

III. Review Agenda (see Alan's PPT)

A. Review Action Items

B. Topics from the Phone Conferences

1. Print Service Interface method name change (not spec. itself)
2. Discuss Discovery Strategy
3. Notification Name Change
4. Separate Credential Schema?

C. Discuss Attribute Structure Object Schemas

D. Discuss Reference Schema

E. Discuss Target Device Schema

F. Review PSI Spec. and Selected Logical View

G. Discuss Future Meetings/Conference calls

Reordered agenda to Review PSI Spec first, picking up other agenda items within the context of the Spec. review.

0. PSI Spec Review. (Updates to be reflected in v0.33)

Section 3 of PSI Spec.

Discovery Strategy. (Alan's PPT)

Not planning to mandate a particular Discovery Mechanism but suggest a Discover Strategy.

1. Pre-configured
2. SLPv2
3. SSDP
4. DNS-SD
5. LDAP
6. UDDI

The order of priority is not mandated, however some devices/use cases may have a logical priority of discovery mechanisms.

Discussion:

Discovery mechanism is very dependent on the particular use case and environment. (home, managed corporate network, firewall traversal etc.) no single discovery mechanism fits all use cases.

Peter made a comment that SLPv2 is aligned with the semantic model.

What's being discovered??

Discovery mechanisms used to find the endpoints, not the capabilities of those endpoints. PSI mechanisms to be used for this.

Introduction section of PSI spec. will include use case examples that include the logical discovery mechanism for that particular use case.

Discovery cases.

1. Service discovers target devices.
2. Client discovers the target devices and the Service, and then informs the service of the target device during job creation
3. Client discovers the target device and target device informs client of Service location. Link local SLP: or SSDP to discover nearby target devices. Asking target for service provider details. (deemed out of scope for PSI v1.0)
4. Enterprise- Use directory scheme or DNS/SD.
- 5.

Issue: PSI strategy works for Print Service and Target Device since these are assumed to have a network connection. Not always clear how a client does discovery

Action Item: Flesh out the details of each discovery methods in PSI spec.
Owner: Bob Taylor
Status: Open

Back to the top of the PSI Spec.

1. Front Matter Action Item: Clean up the "front matter" and add appropriate PWG boiler-plate info.

Action: Provide ISTO PWG copyright info.
Owner: Harry Lewis
Status: Open

2. Section 1.No discussion
3. Section 2.Clarified language in Overview. See updated spec.

* Section 2.2: Added the concept of the Target Device acting as a "proxy/gateway" to client for access to the Print Service.

* Section 2.2: Modified the language for the "Print Service Interface" to more accurately reflect its function. New name is "QueryEndpoints Interface". (see updated Figure 1.)
Action: Update spec. and sequence diagrams to reflect the new interface naming.

* Review and discuss use cases to make sure they address and adhere to the requirements document.

* Section 2.3: Use case 1: Direct Print from mobile to Print Service(Note: Use cases contain required actions that are not specified within PSI (example: Print Service discovery of Target Device and its capabilities).

* Section 2.3: Use Case 2.Bluetooth Print by Reference case.
Issue: Credential exchange between Print Service (JCI) and Target Device. Need details. Issue: Interaction between the

Target Device and the Print Service (JCI) for the delivery of the processed Job. (polling model details, timing and exceptions).

Issue: Persistence of job on PS when TargetDevice is polling.

* Section 2.3: Use Case 3. Direct Print from mobile to Target Device. Issue/Comment: Use case directly overlaps current UpnP 1.0 architecture.

* Section 2.3: Use Case 4. See updated specification. Action: Add sequence diagram.

* Section 2.4 New use cases to be added and requirements still to be addressed: See notes in updated specification (v0.33).

4. Section 4. Discussed the requirements of the PSI Protocol.? PSI requires the use of WSDL/SOAP over HTTP(S), other transports are out of scope of the specification 1.discussion around the use of SOAP (action vs methods). PSI will use methods where UPnP v1 used actions. Believe that SOAP 1.2 will deprecate the general action approach. Since current tool kits still only support 1.1 will stick with that unless SOAP 1.2 becomes compelling in time.

5. Section 5. Discussed the details of the PSI method interactions. (what's returned etc.)

Issue: What does the QueryInterface return. WSDL XML Document? Client issues as a result

of this decision? Changes made inline in updates specification. Need to define an InterfaceIdentifier Schema additional details in psi-spec33.doc/pdf

Issue: What is the well know endpoint used

Afternoon:

6.psi Selected Logical View Report (psi.doc) review :

Items discussed:

Identified attributes of operations that require further definition (schema) and note in (psi.doc)

Action/Issue:Need to define which operations are mandatory/optional for client and server.

How does that definition correlate to the group's charter and requirements doc.

Job Control Interface:

DocumentTypeSupportQuery

Reviewed, briefly, a proposal from HP for an XML format for describing an input document type.See Content Type XML Document Specification draft.

Exceptions returned for methods.

Action: align with Semantic model status strings where appropriate.
also SOAP exceptions

ValidateReference (see updated report)

GetServiceAttributes (see updated report)

CreateJob

Aligned attributes with new Semantic Model.

Added deliverToTarget Device

Action: Need to define schema for the ExceptionAttributesXML that allows exceptions for multiple input schemas. (see new ExceptionAttributes.xsd and updated psi.doc). Propsed changing exceptionAttributes to

Issue: What happens if TargetDevice is unreachable??

Issue: Does CreateJob need credentials?

AddDocumentByReference (see updated report)

AddDocumentByValue

Discussed requirement for Print Service to support Base64 Binary encoding.
Accepted requirement.

AddDocumentByPost

Discussion: EndpointURL is limited to an HTTP(S) URL (i.e., no ftp endpoint).

Issue: How to determine HTTP vs HTTPS? How does the client detect/mandate the PrintService to Target Device link is secure? QueryEndpointInterface attribute suitable for this?(TBD)

Adopted UPnP nomenclature "DataSinkURL"

CreateJobWithDocumentByReference

Discussion: Is restricted to one to one Job/Document relationship.

CreateJobWithDocumentByValue

GetJobs

Discussion Topic: Is this a operation required for PSI v0.95? (Yes)

Discussion Topic: Requestor authorization issues? (policy to be left to site/implementation)

Need to investigate the client requirements resulting from handling complete job tickets. Do we need a separate GetJobTicket operation? TBD

GetJobAttributes

CancelJob

Change jobStateReason to messageToOperator .

Issue: Do we need to be able to relay a reason for cancelling the job? If so it's not jobStateReason....

GetDocumentAttributes

CancelDocument

Same jobStateReason issue...

PostDataForDocumentID

Discussion:

Section 5.3.1 of updated specification "possible new operations" deferred to after PSI 1.0.

Jumping back to a topic before lunch.....

Net result was:

GetServiceAttributes ==>Returns job.xsd for now another proposal to be presented.

And now back to the Job creation method requirements discussion.....

Discussion about what "CreateJob" methods were not really necessary with respect to the use cases in the requirements document.

Decided to delete the following:

AddDocumentByValue-- Reason: Can already push data using AddDocumentByPost, also avoids the encoding of binary data issue.

CreateJobWithDocumentByValue-- Reason: Can already push with CreateJob/DocumentPost pair.

CreateJobWithDocumentByReference-- Reason: Can do this with CreateJob/AddDoc'Reference pair.

Net Result...

CreateJob Mandatory for both Client and Server.

AddDocumentByPost and Ref, are Mandatory for Server, at least one must be supported by Client.

Summary of work Remaining items.

1. Finalize Reference and Target Device Schemas
2. Attributes: PSI has Job, Document, and Processing attributes. Need to help with and leverage the PWG semantic model attributes.
3. Discovery, PS and the target Devices and PS knows about?
4. Revisit Target Device Interface
5. Status code, Hopint that this will be also part of the PWG Semantic jmodel for leverage
6. Event Notification
7. Security
8. Mandatory vs Optional for operations and attributes.

Next conference call on Sept. 10. Check mailing list for details.