Cloud/IPP SIX Comparison

The following table lists the IPP SIX and the Cloud Model operations to be exercised by the Proxy. The tabulation is for comparison discussion purposes, and is not guaranteed to be either compete or accurate. Indeed, many of the Cloud Model elements have not yet been included in the specification.

In comparing IPP SIX and the Cloud Imaging Model, certain basic differences must be recognized:

* The Cloud Model is intended to address services other than printing while IPP-SIX is only for Print Services
* The Cloud Model includes "registration" of Local Imaging Systems; IPP-SIX includes creating subscriptions, which are inherent in registration.
* The Cloud Model intentionally avoids any indication that the Cloud Service can change or configure the Local service in any way; it can only submit Jobs and monitor status. It appears that IPP-SIX also provides for management of the local Service by the "infrastructure printer".
* The Cloud Model refers to Semantic Model terms for operations and elements.

The table includes the IPP SIX Proxy operations that are listed in Table 4 of IPP Shared Infrastructure Extensions (IPPSIX) as MUST or SHOULD, except for Notification Subscription operations, which are not listed as being inherent of registration. These operations and their attributes are compared with the Cloud Imaging Model operations and elements.

Certain attributes/elements must be accommodated in all operation requests and in all operation and responses. These are understood to be as follows:

1. IPP SIX Requests: \* "attributes-charset"; "attributes-natural-language”; "printer-uri" (uri); "output-device-uuid" (uri); requesting-user-name" (name(MAX); "requesting-user-uri" (uri)
2. IPP SIX Responses: \*\* attributes-charset"; "attributes-natural-language "; status-message" (text(255)) and/or a "detailed-status-message" (text(MAX)); Unsupported Attributes
3. Cloud Model Requests: $ ElementsNaturalLanguageRequested; ServiceUuid; RequestingUserName; StateMessages, StateReasons; DetailedStatusMessages;
4. Cloud Model Responses: $$ ElementsNaturalLanguage; message;

(Bill Wagner, 21 Mar 2014)

| **IPP SIX Operation/Request Attributes** | **IPP Response Attributes** | **Model Operation/Request Elements** | **Model Response Elements** |
| --- | --- | --- | --- |
| Acknowledge-Document  \*  "job-id" (integer)  "document-number (integer)  "fetch-status-code" (integer)  fetch-status-message" (text(MAX)): | \*\* | AcknowledgeDocument  $  JobId(int); JobUuid (uri);  DocumentNumber (int) or DocumnetUuid (uri)  ?  ? | $$ |
| Acknowledge-Identify-Printer  \* | \*\* | Function included in GetServiceNotifications |  |
| Acknowledge-Job  \*  "job-id" (integer)  fetch-status-code" (integer)  "fetch-status-message" (text(MAX)): | \*\* | AcknowledgeJob  $  JobId ; JobUuid;  ?  ? | $$ |
| Fetch-Document  \*  "job-id" (integer)  "document-number (integer)"  compression-accepted (1setOf type2 keyword)  document-format-accepted" (1setOf mimeMediaType) | \*\*  "compression" (type2 keyword)  "document-password" (octetString)  document-preprocessed" (boolean)  document-format" (mimeMediaType)  "document-uri" (uri)  Document data | FetchDocument  $  JobId(int), JobUuid (uri)  DocumentNumber (int) or DocumentUuid (uri)  ? CompressionSupported (list of keywords)  ? DocumentFormatSupported (list of keywords) | $$  DocumentMessage;  DocumentData  DocumentUri;  DocumentFormat; |
| Fetch-Job  \*  "job-id" (integer) | \*\*  "job-password" (octetString)  "job-password-encryption" (type2 keyword)  Job Template and Description attributes for the Job | FetchJob  $  JobId ; JobUuid; | $$;  JobTicket |
| Get-Documents  \*  "limit" (integer(1:MAX))  "requested-attributes" (1setOf type2 keyword) [document-number | \*\*  Document Object Attributes | ?? |  |
| Get-Document-Attributes | \*  "requested-attributes" (1setOf keyword) | ??    \*\*  Document Object Attributes requested Document Template and Document Description attributes) |  |
| Get-Job-Attributes  \*  "job-id"(integer(1:MAX  "requested-attributes" (1setOf keyword) | \*\*  Job Object Attributes | GetJobElements  $;  JobId ; JobUuid;  RequestedElements (JobReceipt, JobStatus, or Job Ticket.) | $$;  JobElements |
| Get-Jobs  \*  "limit"  "requested-attributes"  which-jobs='fetchable'  'completed'  'not-completed'  "my-jobs" (boolean): | \*\*  Unsupported Attributes  Job Object Attributes | GetFetchableJobs  $; | $$;  Zero or more Set of elements of JobTicket, including  JobID;  JobUuid;  JobName, |
| Get-Notifications  \*  "notify-subscription-ids" (1setOf integer(1:MAX))  "notify-sequence-numbers" (1setOf integer(1:MAX))  "notify-wait" (boolean) | \*\*  notify-get-interval (integer(0:MAX)  printer-up-time (integer(1:MAX))  Event Notification Attributes | GetServiceNotifications  $  (see text) | $$  (see text) |
| Update-Active-Jobs  \*  " job-ids" (1setOf integer):  "output-device-job-states" (1setOf type1 enum): | \*  "job-ids" (1setOf integer):  "output-device-job-states" (1setOf type2 enum) | UpdateActiveJobs  $;  Zero or more Set of:  JobID;  JobUuid;  JobName,;  JobState;  JobStateReasons | $$;  Set of ( for select jobs (note 1)  JobID;  JobUuid;  JobName,;  JobState;  JobStateReasons |
| Update-Document-Status  \*  "job-id" (integer)  "document-number “ (integer)  "impressions-completed" (integer): "k-octets-processed" (integer):  "media-sheets-completed" (integer)  "output-device-document-state" (type2 enum):  "output-device-document-state-message" (text):  "output-device-document-state-reasons" (1setOf type2 keyword):  "pages-completed" (integer) | \*\*  "job-ids" (1setOf integer):  "output-device-job-states" (1setOf type2 enum) | UpdateDocumentStatus  $  JobId(int), JobUuid (uri)  DocumentNumber (int) or DocumentUuid (uri)  DocumentMessage; DocumentStateMessage; DocumentStateReasons; ,  DocumentDescriptionElements | $$ |
| Update-Job-Status  \*  "job-id" (integer),  "impressions-completed" (integer)  "job-k-octets-processed" (integer):  "job-media-sheets-completed" (integer)  "job-pages-completed" (integer):  "output-device-job-state" (type2 enum)  "output-device-job-state-message" (text);  "output-device-job-state-reasons" (1setOf type2 keyword): | \*\* | UpdateJobStatus  $  JobId(int), JobUuid (uri)  JobStateMessages; JobStateReasons;  JobDescriptionElements | $$ |
| Update-Output-Device-Attributes  \*  "job-id" (integer)  "xxx-default", "xxx-ready", and "xxx-supported"  "media-col-database" (1setOf collection):  "printer-alert" (1setOf octetString)  "printer-alert-description" (text):  "printer-input-tray" (1setOf octetString):  "printer-output-tray" (1setOf octetString)  "printer-state" (type2 enum):  "printer-state-message" (text):  "printer-state-reasons" (1setOf type2 keyword):  "printer-supply" (1setOf octetString)  "printer-supply-description" (1setOf octetString): | \*\* | UpdateServiceElements  $  ServiceStatus elements  Selected Service Description, CapabilitiesReady, Configuration and Defaults elements | $$ |
|  |  | UploadJobDocumentData |  |
|  |  | RegisterSystem |  |
|  |  | DeregisterSystem |  |
|  |  | UpdateSystemElements |  |

IPP SIX Subscription Operations

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Cancel-Subscription |  |  |  |
| Create-Job-Subscriptions |  |  |  |
| Create-Printer-Subscriptions |  |  |  |
| Renew-Subscription |  |  |  |