Keynote® Data Feed XML Edition

User Guide

Version 1.5 - systkt

Confidentiality Notice

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Introduction

This document provides technical details and usage suggestions for users of Keynote DataFeed XML Edition.

Using DataFeed XML Edition, you can retrieve, then store and analyze your Keynote data with your own software analysis tools.

Data Feed XML Edition provides you with output files of your measurement data generated on 24-hour and/or 15-minute cycles. It enables you to retrieve your data in XML format. The DTD for Data Feed XML Edition is described later in this document.

File Location and Directory Structure

You can retrieve your Data Feed XML Edition data using a browser or using an automated process. The location and path to access your data with Data Feed XML Edition is

https://datafeed.keynote.com/private/<agreement-id>

(where *agreement-id* is your agreement number. To access these files, customers are required to provide the agreement number and a special password provided by Keynote.

Note: Your agreement number should be considered proprietary information and should not be shared with anyone outside your organization. You will also be prompted to enter your user authentication which consists of a login and password, which you should receive when signing up for the XML DataFeed.

The output files are stored under the following directory structure:

private
→ ***<agreement-id (Your agreement id)>***

→<**service name**--**trans, streaming, map>**
→ **xml**
→ **daily** (for 24-hour cycles)
→ <date_stamped_files>
→ <date_stamped_files>
→ <date_stamped_files>
→ **latest** (for 15-minute cycles)
→ <date_time_stamped_files>
→ <date_time_stamped_files>
→ <date_time_stamped_files>

<agreement-id> is the numeric agreement identifier under which all measurements are provisioned. <date_stamped_files> and <date_time_stamped_files> represent multiple files contained in the respective directories.

Transaction Perspective and Application Perspective

XML Data Elements

This table describes the measurement data elements for Transaction Perspective and Application Perspective measurements.

ELEMENT: **TXN_DATA_FEED** Consists of 0 or more TXN_MEASUREMENT elements.	
ELEMENT: **TXN_META_DATA** Description of measurement	
ATTRIBUTES	
agent	The numeric designation of the Keynote agent location taking the measurement.
slot	The Keynote numeric designation of the measurement.
datetime	Identifies when the measurement was taken, the time zone is GMT.
target	The numeric designation(unique identifier) of script being used for measurement
agent_inst	The numeric designation of a specific agent instance within an agent location taking measurements. (Used internally by Keynote for load balancing purposes.)
profile	The numeric designation of connection properties on which measurement was taken by keynote agent computer. Details of its properties are described in profile_meta_data element below.
ELEMENT: AGENT_META_DATA Description of agent	
ATTRIBUTES	
agent_id	The numeric designation of the Keynote agent location taking the measurement.
description	The Name of the Keynote agent location taking the measurement.
weight	Deprecated

ip	IP address of Keynote agent computer taking measurement
backbone	The name of the ISP used by an agent computer to take measurements. This property will be only present if profile is blank meaning there is no profile information for agent.
instance_id	Another name for agent_inst. The numeric designation of a specific agent instance within an agent location taking measurements. (Used internally by Keynote for load balancing purposes.)
city	City in which agent computer is located
country	Country in which agent computer is located
ELEMENT: **SLOT_META_DATA** Each instance represents a specific transaction measurement.	
ATTRIBUTES	
slot_id	Unique ID to describe a measurement setup for user
slot_alias	Name of measurement
pages	Number of pages in measurement script
subservice	The type of engine being used to measure. Example: TxP means Transaction Perspective engine and ApP means application perspective engine
ELEMENT: **PAGE_META_DATA** Each instance represents a specific transaction measurement script steps.	
ATTRIBUTES	
page_alias	Script step name
page_seq	Script step ID
ELEMENT: **PROFILE_META_DATA**	
ATTRIBUTES	
access_sub_type	Connection sub type used by agent computer,

	Example, 56K
profile_name	Used internally by Keynote when setting up measurement agent computers on broadband or dialup connections.
access_type	Connection type used by agent computer, Example: Dialup
provider	Provider for connection, like EarthLink
profile_id	Unique id for the connection used
ELEMENT: **TXN_MEASUREMENT** Each instance represents a specific transaction data point.	
ATTRIBUTES	
slot	Keynote identification for the measurement
agent	Keynote identification for which agent took the measurement.
agent_inst	The numeric designation of a specific agent instance within an agent location taking measurements. (Used internally by Keynote for load balancing purposes.)
datetime	This field identifies when the measurement was taken, the time zone is GMT.
target	The unique id of script part of measurement. Used internally by Keynote to manage capacity. Target ID numbers are subject to change without notice.
profile	Whether the transaction uses a virtual profile. 1=Yes, 0=no.
ELEMENT: **TXN_SUMMARY**	
ATTRIBUTES	
bandwidth_kbsec	Average data transfer rate measured in kilobits per seconds, of all data transferred from the first byte of a file to the final byte of the file.
browser_errs	The number of JavaScript errors that the browser encountered on all pages during the execution of the transaction.

connection_count	Number of connections used during download.
content_errors	The total number of content errors in the transaction. Content errors are errors while retrieving page elements and are non-fatal to the transaction.
delta_msec	The time to complete the full page, measured from the time the navigation started until the time the last resource was fetched. Because Internet Explorer uses multiple connections to fetch the resources, the sum of the times for download of all resources could be larger than the full-page download. This component does not include resources that are used by the page but cached locally and thus not downloaded in the current session. This is the field used by default by Keynote's services to report on download times.
delta_user_msec	The user experience full page time as reported by Internet Explorer. This is considered an alternate method of measuring download times. In simple terms, it measures how long it took for Internet Explorer to report "Done" in the status bar.
domain_count	Number of domains from which content was served.
estimated_cache_delta_msec	Estimated network overall download time if cached elements were not downloaded (normally is the case for first page of a transaction).
privacy_cookies_count	Total number of received 3rd party cookies for the transaction – sum of all pages. It no cookies are received the value is NULL. Included all types of cookies, supported by the engine: HTTP cookies, Flash cookies, etc.
trans_level_comp_msec	Custom component time at transaction level
ELEMENT: **TXN_DIALER** Measurement data for dialup measurements	
ATTRIBUTES	
setup_msec	Time taken in establishing dialup connection, present for dialup connection
speed	Speed used by dialup modem, present only for dialup connection
attempts	No of attempts to establish dialup connection, present

	only for dialup connection
phone_number	Phone number used to dial in by model, present only for dialup connection
ELEMENT: **TXN_ERROR**	
ATTRIBUTES	
code	Contains an error code, if any, recorded for a measurement. The attribute, and the TXN_ERROR element, may be missing if the value is null. Null and zero values are both indicative of successful measurements.
page	In the case of a page level error, this field contains the erroneous page's number. The error code is in Error_Code.
ELEMENT: **TXN_PAGE**	
ATTRIBUTES	
page_seq	Identifies which step of the transaction script the data is associated with.
ELEMENT: **TXN_PAGE_PERFORMANCE**	
ATTRIBUTESxx	
bandwidth_kbsec	Average data transfer rate measured in kilobits per seconds, of all data transferred from the first byte of a file to the final byte of the file.
browser_errs	The number of JavaScript errors that the browser encountered on all pages during the execution of the transaction.
connect_delta	The connection time of the base page resource, if presented.
connection_count	Number of HTTP connections.
custom_component_1_msec	This is custom component 1 at page level.
custom_component_2_msec	This is custom component 2 at page level.
custom_component_3_msec	This is custom component 3 at page level.

delta_msec	The time to complete the full page, measured from the time the navigation started until the time the last resource was fetched. Because Internet Explorer uses multiple connections to fetch the resources, the sum of the times for download of all resources could be larger than the full-page download. This component does not include resources that are used by the page, but cached locally and thus not downloaded in the current session. This is the field used by default by Keynote's services to report on download times.
delta_user_msec	The user experience full page time as reported by Internet Explorer. This is considered an alternate method of measuring download times. In simple terms, it measures how long it took for Internet Explorer to report "Done" in the status bar.
dns_lookup_msec	The time spent resolving the DNS name to an IP address.
dom_complete_msec	How long the measurement was running when the browser finished processing the DOM for the current page. This is the domComplete attribute of the Navigation Timing specification.
dom_content_load_time	This is how long the measurement was running when the browser finished processing the DOM for the current page. This is the domComplete attribute of the Navigation Timing specification.
dom_interactive_msec	How long in milliseconds the measurement was running when the user could start to interact with the current page in the browser. This is the domInteractive attribute of the Navigation Timing specification.
domain_count	The number of unique domains resolutions (DNS requests) in the the transaction. If the metric is not reported, the value is NULL. The value is the sum of all pages domains resolutions.
estimated_cache_delta_msec	This is estimated network overall download time if cached elements were not downloaded at page level (normally the case for first page).
first_byte_msec	Once the `connection is set up, the agent will request data from the server with an HTTP Get command. This Time to First Byte measurement is the amount of time from when the agent starts its initial connection setup until it sees the first byte back from the server.
first_packet_delta	The time to first packet of the base page resource.

ms_first_paint_msec	How long in milliseconds the measurement was running when the browser started displaying the current page.
privacy_cookies_count	Total number of received 3rd party cookies for the transaction – sum of all pages. It no cookies are received the value is NULL. Included all types of cookies, supported by the engine: HTTP cookies, Flash cookies, etc.
remain_packets_delta	Time to download the remaining packets after the first packet.
request_delta	The base page request time.
ssl_handshake_delta	The base page SSL time.
start_msec	The start time offset of a page from the beginning of download of the transaction. The first page off set is always 0.
system_delta	The total time spent fetching the resource, excluding the time spent for interaction with the network.
ELEMENT: **TXN_PAGE_OBJECT**	
ATTRIBUTES	
element_count	The number of elements in the page, including base page.
redir_delta	The total redirect time of the base page, if present.
redir_count	The number or redirects of the base page, if presented.
page_bytes	Byte size of the content.
ELEMENT: **TXN_PAGE_STATUS**	
ATTRIBUTES	
content_errors	The total number of content errors in the transaction. Content errors are errors while retrieving page elements and are non-fatal to the transaction.
error_code	Contains an error code, if any, recorded for a given page of a measurement. Null and zero values are both

	indicative of successful measurements.
ELEMENT: **TXN_DETAIL_PERFORMANCE**	
ATTRIBUTES	
start_msec	The start time offset of a page element from the beginning of download of the transaction. The first page element off set is always 0.
system_delta	The total time spent fetching the page element, excluding the time spent for interaction with the network.
connect_delta	The connection time of the element, if presented.
dns_delta	DNS time for the element.
element_delta	Total download time for a page element (much like measurement_network).
first_packet_delta	The time to first packet of the page element.
request_delta	The page element request time.
remain_packets_delta	The time to download the rest of the packets for the page element.
ssl_handshake_delta	The page element SSL time.
detail_component_1_msec	This is custom component 1 at element level.
detail_component_2_msec	This is custom component 2 at element level.
detail_component_3_msec	This is custom component 3 at element level.
msmt_conn_id	This is unique id captured by agent which differentiates one browser (http connection) from another.
element_cached	Indicates if this element was cached and did not get downloaded.
custom_object_trend	A custom grouping of elements based on user-defined characteristics for a specific element.

ELEMENT: **TXN_DETAIL_OBJECT**

Present when there is a content error or redirection, and for all premium mode measurements.

For Application Perspective measurements, this element will always be present for the base page.

ATTRIBUTES

conn_string_text	The page element's protocol, plus host name, plus port number.
content_type	The type of content (for example, Gif, Java, etc.) returned by the agent either as a type code or as a string as reported by the content. These content_type codes may be reported:

0	application/java
1	application/mac-binhex40
2	application/octet-stream
3	application/oda
4	application/pdf
5	application/postscript
6	application/rtf
7	application/x-bcpio
8	application/x-compress
9	application/x-cpio
10	application/x-csh
11	application/x-dvi
12	application/x-gtar
13	application/x-gzip
14	application/x-hdf
15	application/x-javascript
16	application/x-latex
17	application/x-mif
18	application/x-netcdf
19	application/x-postscript
20	application/x-sh
21	application/x-shar
22	application/x-sv4cpio
23	application/x-sv4crc
24	application/x-tar
25	application/x-tcl
26	application/x-tex
27	application/x-texinfo
28	application/x-troff

29	application/x-troff-man
30	application/x-troff-me
31	application/x-ustar
32	application/x-wais-source
33	application/x-x509-ca-cert
34	application/zip
35	audio/basic
36	audio/x-aiff
37	audio/x-wav
38	image/gif
39	image/ief
40	image/jpeg
41	image/tiff
42	image/x-cmu-raster
43	image/x-portable-anymap
44	image/x-portable-bitmap
45	image/x-portable-graymap
46	image/x-portable-pixmap
47	image/x-rgb
48	image/x-xbitmap
49	image/x-xpixmap
50	image/x-xwindowdump
51	text/html
52	text/plain
53	text/richtext
54	text/tab-separated-values
55	text/x-setext
56	video/mpeg
57	video/mpeg2
58	video/quicktime
59	video/x-msvideo
60	video/x-rad-screenplay
61	video/x-sgi-movie
62	x-world/x-vrml
63	application/x-shockwave-flash
64	app/fireclick.x-hint.1
65	application/javascript
66	application/x-pointplus
67	dynamo-internal/forbidden
68	image/bmp
69	image/pjpeg
70	image/png
71	multipart/x-byteranges
72	text/css

	73 text/javascript 74 text/js 75 text/vbscript 76 text/vnd.wap.wml 77 text/x-component 78 text/xml 79 www/unknown 1000 UNKNOWN 1001 FRAME 1002 REDIRECT 1003 METAREFRESH
content_bytes	Byte size of the content.
element_cached	Indicates if this element was cached and did not get downloaded. 1=cached.
header_bytes	Byte size of the header.
header_code	Provides additional information about the HTML request/response, most frequently about whether the body is compressed.
request_bytes	Byte size of the request call.
ip_address	IP address of the page or page element.
object_text	The page element's path and document name.
ELEMENT: **TXN_DETAIL_STATUS**	
ATTRIBUTES	
error_code	Contains an error code for the first page in the transaction that has a page level error. The page's number is shown in Error_Page.
status_code	Non-error information reported by the agent.
ELEMENT: **TXN_PAGE_DETAILS**	
ATTRIBUTES	
page	In the case of a page level error, this field contains the erroneous page's number. The error code is in ErrorCode.

ELEMENT: **TXN_DETAIL_ERROR** Represents a transaction playback error record. This element is sent when there was an error that caused the playback engine to abort the transaction. This would usually be caused by changes to the page after recording the script.	
ATTRIBUTES	
record_seq	The error's sequence id.
url	Location of page with error.
title	Title of the page.
html_element_text	Outer HTML text (For example: <input size=30 name=p>).
error_text	Page Error String (For example: Page Not found).
ELEMENT: **TXN_REDIRECT** Represents a redirect detail record. Page-level redirects are sent whenever a redirect occurs. There can be zero or more redirects associated with each page of the transaction. There can also be redirect elements associated with page content (elements), however, these redirects are only sent when there is a content error detected on the page.	
ATTRIBUTES	
record_seq	The redirect's sequence id.
record_subseq	The redirection sequence of specific element. If the there is no redirection the value is 0.
ELEMENT: **TXN_BASE_PAGE** Represents a base page detail record. There will be exactly one of these elements present (per page). However, this element is only sent if a Content Error occurred on the page.	
ATTRIBUTES	
record_seq	The base page's sequence id.
ELEMENT: **TXN_PAGE_ELEMENT** Represents a page element detail record. There can be zero or more of these elements representing content on the page. However, these elements are only sent if there was at least one content error on the page.	
ATTRIBUTES	
record_seq	The page element's sequence id.

DTD for Keynote XML Datafeed

```
<!ELEMENT TXN_DATA_FEED (TXN_META_DATA?,DP_TXN_MEASUREMENTS?) >
<!ELEMENT TXN_META_DATA (AGENT_META_DATA*,
SLOT_META_DATA*,PROFILE_META_DATA?) >
<!ATTLIST TXN_META_DATA agreement_id            CDATA #REQUIRED >
<!ELEMENT AGENT_META_DATA EMPTY >
<!ATTLIST AGENT_META_DATA agent_id        CDATA #REQUIRED >
<!ATTLIST AGENT_META_DATA instance_id           CDATA #REQUIRED >
<!ATTLIST AGENT_META_DATA country         CDATA #REQUIRED >
<!ATTLIST AGENT_META_DATA description           CDATA #REQUIRED >
<!ATTLIST AGENT_META_DATA region          CDATA #REQUIRED >
<!ATTLIST AGENT_META_DATA ip        CDATA #REQUIRED >
<!ATTLIST AGENT_META_DATA backbone        CDATA #REQUIRED >
<!ATTLIST AGENT_META_DATA weight          CDATA #REQUIRED >
<!ATTLIST AGENT_META_DATA city            CDATA #REQUIRED >

<!ELEMENT SLOT_META_DATA (PAGE_META_DATA* >
<!ATTLIST SLOT_META_DATA slot_id          CDATA #REQUIRED >
<!ATTLIST SLOT_META_DATA slot_alias       CDATA #REQUIRED >
<!ATTLIST SLOT_META_DATA pages            CDATA #REQUIRED >
<!ATTLIST SLOT_META_DATA subservice       CDATA #REQUIRED >

<!ELEMENT PAGE_META_DATA EMPTY >
<!ATTLIST PAGE_META_DATA page_url         CDATA #REQUIRED >
<!ATTLIST PAGE_META_DATA page_alias       CDATA #REQUIRED >
<!ATTLIST PAGE_META_DATA page_seq         CDATA #REQUIRED >


<!ELEMENT PROFILE_META_DATA EMPTY >
<!ATTLIST PROFILE_META_DATA profile_id          CDATA #REQUIRED >
<!ATTLIST PROFILE_META_DATA profile_name  CDATA #REQUIRED >
<!ATTLIST PROFILE_META_DATA provider            CDATA #REQUIRED >
<!ATTLIST PROFILE_META_DATA access_type         CDATA #REQUIRED >
<!ATTLIST PROFILE_META_DATA access_sub_type     CDATA #REQUIRED >


<!ELEMENT DP_TXN_MEASUREMENTS (TXN_MEASUREMENT*) >
<!ELEMENT TXN_MEASUREMENT
(TXN_SUMMARY,TXN_DIALER?,TXN_ERROR?,TXN_PAGE+) >
<!ATTLIST TXN_MEASUREMENT slot            CDATA #REQUIRED >
<!ATTLIST TXN_MEASUREMENT agent           CDATA #REQUIRED >
<!ATTLIST TXN_MEASUREMENT agent_inst            CDATA #REQUIRED >
<!ATTLIST TXN_MEASUREMENT datetime        CDATA #REQUIRED >
<!ATTLIST TXN_MEASUREMENT target          CDATA #REQUIRED >
<!ATTLIST TXN_MEASUREMENT profile         CDATA #IMPLIED >
<!ELEMENT TXN_SUMMARY EMPTY >
<!ATTLIST TXN_SUMMARY delta_user_msec           CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY delta_msec          CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY estimated_cache_delta_msec            CDATA
#IMPLIED >
<!ATTLIST TXN_SUMMARY trans_level_comp_msec           CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY resp_bytes          CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY element_count       CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY content_errors            CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY bandwidth_kbsec           CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY domain_count        CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY connection_count          CDATA #IMPLIED >
<!ATTLIST TXN_SUMMARY browser_errs        CDATA #IMPLIED >
```

```
<!ELEMENT TXN_DIALER EMPTY >
<!ATTLIST TXN_DIALER setup_msec           CDATA #IMPLIED >
<!ATTLIST TXN_DIALER attempts             CDATA #IMPLIED >
<!ATTLIST TXN_DIALER speed                CDATA #IMPLIED >
<!ATTLIST TXN_DIALER phone_number         CDATA #IMPLIED >

<!ELEMENT TXN_ERROR (TXN_COUNT?) >
<!ATTLIST TXN_ERROR code                  CDATA #REQUIRED >
<!ATTLIST TXN_ERROR page                  CDATA #IMPLIED >


<!ELEMENT TXN_COUNT EMPTY >
<!ATTLIST TXN_COUNT value                 CDATA #IMPLIED >


<!ELEMENT TXN_PAGE (TXN_PAGE_PERFORMANCE, TXN_PAGE_OBJECT,
TXN_PAGE_STATUS, TXN_PAGE_DETAILS?) >
<!ATTLIST TXN_PAGE page_seq               CDATA #REQUIRED >
<!ELEMENT TXN_PAGE_PERFORMANCE EMPTY >
<!ATTLIST TXN_PAGE_PERFORMANCE delta_msec       CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE delta_user_msec  CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE estimated_cache_delta_msec         CDATA
#IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE custom_component_1_msec            CDATA
#IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE custom_component_2_msec            CDATA
#IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE custom_component_3_msec            CDATA
#IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE start_msec       CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE dns_lookup_msec  CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE first_byte_msec  CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE system_delta           CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE connect_delta          CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE first_packet_delta     CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE ssl_handshake_delta    CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE request_delta          CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE remain_packets_delta   CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE bandwidth_kbsec        CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE privacy_cookies_count  CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE domain_count     CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE connection_count       CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE browser_errs     CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE dom_unload_time        CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE dom_interactive_msec   CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE dom_content_load_time  CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE dom_complete_msec           CDATA
#IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE dom_load_time    CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE ms_first_paint_msec    CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE full_screen_msec       CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_PERFORMANCE time_to_interactive_page     CDATA
#IMPLIED >


<!ELEMENT TXN_PAGE_OBJECT EMPTY >
<!ATTLIST TXN_PAGE_OBJECT element_count         CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_OBJECT redir_delta                 CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_OBJECT redir_count                 CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_OBJECT page_bytes                  CDATA #IMPLIED >
```

```
<!ELEMENT TXN_PAGE_STATUS EMPTY >
<!ATTLIST TXN_PAGE_STATUS content_errors        CDATA #IMPLIED >
<!ATTLIST TXN_PAGE_STATUS error_code                CDATA #IMPLIED >

<!ELEMENT TXN_PAGE_DETAILS ( TXN_DETAIL_ERROR | TXN_REDIRECT |
TXN_BASE_PAGE | TXN_PAGE_ELEMENT )*  >
<!ATTLIST TXN_PAGE_DETAILS page           CDATA #IMPLIED >

<!ELEMENT TXN_DETAIL_ERROR EMPTY >
<!ATTLIST TXN_DETAIL_ERROR record_seq           CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_ERROR url            CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_ERROR title          CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_ERROR html_element_text    CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_ERROR error_text           CDATA #IMPLIED >

<!ELEMENT TXN_REDIRECT
(TXN_DETAIL_PERFORMANCE,TXN_DETAIL_OBJECT,TXN_DETAIL_STATUS) >
<!ATTLIST TXN_REDIRECT record_seq         CDATA #REQUIRED >
<!ATTLIST TXN_REDIRECT record_subseq            CDATA #REQUIRED >

<!ELEMENT TXN_BASE_PAGE
(TXN_DETAIL_PERFORMANCE,TXN_DETAIL_OBJECT,TXN_DETAIL_STATUS) >
<!ATTLIST TXN_BASE_PAGE record_seq        CDATA #REQUIRED >

<!ELEMENT TXN_PAGE_ELEMENT
(TXN_DETAIL_PERFORMANCE,TXN_DETAIL_OBJECT,TXN_DETAIL_STATUS) >
<!ATTLIST TXN_PAGE_ELEMENT record_seq           CDATA #REQUIRED >


<!ELEMENT TXN_DETAIL_PERFORMANCE EMPTY >
<!ATTLIST TXN_DETAIL_PERFORMANCE start_msec                CDATA
#IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE system_delta         CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE connect_delta        CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE dns_delta                 CDATA
#IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE element_delta        CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE first_packet_delta         CDATA
#IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE request_delta        CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE remain_packets_delta CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE ssl_handshake_delta        CDATA
#IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE detail_component_1_msec          CDATA
#IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE detail_component_2_msec          CDATA
#IMPLIED >
<!ATTLIST TXN_DETAIL_PERFORMANCE detail_component_3_msec          CDATA
#IMPLIED >

<!ELEMENT TXN_DETAIL_OBJECT EMPTY >
<!ATTLIST TXN_DETAIL_OBJECT conn_string_text    CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT content_type  CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT content_bytes CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT header_bytes  CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT header_code   CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT request_bytes CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT ip_address    CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT object_text   CDATA #IMPLIED >
```

```
<!ATTLIST TXN_DETAIL_OBJECT element_cached            CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT msmt_conn_id        CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_OBJECT custom_object_trend       CDATA #IMPLIED >

<!ELEMENT TXN_DETAIL_STATUS EMPTY >
<!ATTLIST TXN_DETAIL_STATUS error_code    CDATA #IMPLIED >
<!ATTLIST TXN_DETAIL_STATUS status_code   CDATA #IMPLIED >
```

Mobile Web Perspective XML Element Descriptions

This table describes the meta-data and measurement data elements delivered by Data Feed XML Edition for Mobile Web Perspective.

Element: **WXN_DATA_FEED** Consists of 0 or more WXN_META_DATA and 0 or more DP_WXN_MEASUREMENTS elements.	
Meta-Data	
ELEMENT: **WXN_META_DATA** Description of measurement provisioning. WXN_META_DATA encapsulates meta-data for Mobile Application Perspective services. Meta-data consists of four parts: AGENT_META_DATA, SLOT_META_DATA, PAGE_META_DATA, and PROFILE_META_DATA. This data represents a mapping of agent and slot ids to the detailed information about the agents and slots associated with the specified agreement.	
ATTRIBUTES: none.	
ELEMENT: **AGENT_META_DATA** Description of agent.	
ATTRIBUTES	
agent_id	The numeric designation of the Keynote agent location taking the measurement.
description	The name of the Keynote agent location taking the measurement.
weight	Deprecated.
ip	Internet protocol (v4) address of Keynote agent computer taking measurement, in dot notation.
backbone	The name of the ISP used by an agent computer to take measurements. This property will be only present if profile is blank meaning there is no profile

	information for agent.
instance_id	The numeric designation of a specific agent instance within an agent location taking measurements. (Used internally by Keynote for load balancing purposes.)
city	City in which agent computer is located.
country	Country in which agent computer is located.
region	Region in which agent computer is located.
ELEMENT: **SLOT_META_DATA** Each instance represents a specific transaction measurement.	
ATTRIBUTES	
slot_id	Unique ID to designate a measurement.
slot_alias	Customer-supplied measurement name.
pages	Number of pages in measurement script.
device	Type of device being used to measure.
user_string	The User-String: request header.
ELEMENT: **PAGE_META_DATA** Each instance represents a specific step in a transaction measurement script.	
ATTRIBUTES	
page_alias	Script step name.

page_seq	Script step ID.
ELEMENT: **PROFILE_META_DATA** Contains dial-up and broadband profile attributes.	
ATTRIBUTES	
access_sub_type	Connection sub type used by agent computer ; for example, 56K
access_type	Connection type used by agent computer; for example, Dialup
profile_name	Used internally by Keynote when setting up measurement agent computers on broadband or dialup connections.
provider	Provider for connection; for example, Earthlink
profile_id	Unique id for the profile used. Please see description of profile above.

Measurement Data

ELEMENT: **DP_WXN_MEASUREMENTS**

DP_WXN_MEASUREMENTS is an outer tag that encapsulates all measurements. Nested under this tag are zero or more TXN_MEASUREMENT elements, each instance representing a specific transaction measurement.

ATTRIBUTES: none.

ELEMENT: **WXN_MEASUREMENT**
Each instance represents a specific transaction datapoint.

Each WXN_MEASUREMENT element then supports a WXN_SUMMARY element, followed by an optional WXN_SCRIPT, one or more WXN_DETAIL_OBJECT elements, and then WXN_PAGE elements.

slot	Keynote identification for the measurement.
agent	Keynote identification for the agent that took the measurement.
agent_inst	The numeric designation of a specific agent instance within an agent location taking measurements. (Used internally by Keynote for load balancing purposes.)
datetime	Identifies when the measurement was taken; the time zone is GMT.
target	The unique id of script part of measurement. Used internally by Keynote to manage capacity. Target ID numbers are subject to change without notice.
profile_id	Unique id for the profile used.
ELEMENT: **WXN_SUMMARY** Summary information for the measurement.	
ATTRIBUTES	
delta_msec	This is the total duration of the script in milliseconds from starting the connection to finishing hanging up the modem.
wap_connect_msec	This gives the connection duration in milliseconds (CD = IPCP – Dial_AT) for establishing the connection over Probe. Performance trending will exclude this value from delta_msec above.
hangup_msec	This gives the hang up duration in milliseconds. The calculation is made from the hang up command sent to the end of the disconnection. . Performance

	trending will exclude this value from delta_msec above.
signal_strength	This value gives the signal strength measured in the beginning of the script (just before the network connection) in RSSI (received signal strength indicator)
task_succeed	0=failed, 1=successful measurement.
ELEMENT: **WXN_SCRIPT** Information relating to the script used in the measurement.	
ATTRIBUTES	
content_error	Number of content errors during the measurement.
error_code	Error code during the measurement.
no_of_resources	Number of resources downloaded during the measurement.
device	For internal use.(Do not use)
user_string	User-String: header actually used for the measurement.
ELEMENT: **WXN_DETAIL_OBJECT** Details on resources downloaded during the measurement. An optional PDU, followed by a CONTENT_TYPE, SCONTENT_TYPE, and a URL are expected here.	
ATTRIBUTES	
resource_id	ID for the resource.
ELEMENT: **CONTENT_TYPE** Content type, *e.g.,* "image."	

ATTRIBUTES: none	
ELEMENT: **SCONTENT_TYPE** Content subtype e.g. "png."	
ATTRIBUTES: none	
ELEMENT: **URL** URL referencing the resource.	
ATTRIBUTES: none	
ELEMENT: **WXN_PAGE** Describes a script step or page.	
ATTRIBUTES	
page_seq	ID for the page. Page sequence numbers start from 1 and increment.
ELEMENT: **WXN_PAGE_PERFORMANCE** Performance metrics for the page.	
ATTRIBUTES	
delta_msec	The time to complete the full page, measured from the time the navigation started until the time the last resource was fetched. Because browser uses multiple connections to fetch the resources, the sum of the times for download of all resources could be larger than the full-page download. This component does not include resources that are used by the page, but cached locally and thus not downloaded in the current session.
start_msec	For internal Use, (Do not use)

dns_lookup_msec	The time spent resolving the DNS name to an IP address.
system_delta	The total time spent fetching the page, excluding the time spent for interaction with the network.
connect_delta	The TCP connection time of the base page resource, if presented.
first_packet_delta	The time to first packet of the base page resource.
ssl_handshake_delta	The base page SSL time.
request_delta	The base page request time.
remain_packets_delta	Time to download the remaining packets after the first packet.
new_connection	This Boolean informs if the agent for the current action has launched a new connection or not (1 = created new connection, 0 = reused already-existing one)
ELEMENT: **WXN_PAGE_OBJECT** Contains measurement values related to the number of objects and/or redirects on a specific page of a measurement.	
ATTRIBUTES	
element_count	The number of elements in the page, including base page.
redir_delta	Not is use
redir_count	Not in use

page_bytes	Byte size of the content.
ELEMENT: **WXN_PAGE_DETAILS** More details on each page measured. Expected to contain 1 or more WXN_PAGE_ELEMENT elements.	
ATTRIBUTES	
page	The page whose details are being reported.
ELEMENT: **WXN_PAGE_ELEMENT** A page resource reference. Contains exactly one WXN_DETAIL_PERFORMANCE and one WXN_DETAIL_STATUS element.	
ATTRIBUTES	
resource_id	The resource identifier for this page references.
ELEMENT: **WXN_DETAIL_PERFORMANCE** Performance details on a page resource reference.	
ATTRIBUTES	
start_msec	The start time offset of a resource download from the beginning of download of the transaction page.
system_delta	The total time spent fetching the resource, excluding the time spent for interaction with the network.
connect_delta	The connection time of the page resource, if presented.
dns_delta	The time spent resolving the DNS name to an IP address.

element_delta	The time to complete the full resource download, measured from the time the navigation started until the time the resource was fetched.
first_packet_delta	The time to first packet of the resource.
request_delta	The request time.
remain_packets_delta	Time to download the remaining packets after the first packet.
ssl_handshake_delta	The SSL time.
ELEMENT: **WXN_DETAIL_STATUS** The status return of the measurement for a page resource reference.	
ATTRIBUTES	
error_code	The Keynote-internal error code or response status code.

Streaming XML Data Elements

This table describes the measurement data elements for Streaming Perspective measurements.

ELEMENT: **STR_DATA_FEED** Consists of 0 or more Streaming Perspective measurement elements.	
ELEMENT: **STR_META_DATA** Description of Streaming Perspective measurement	
ATTRIBUTES	
agreement_id=	The numeric designation of the Keynote customer agreement for this measurement. Example: "123456"

ELEMENT: AGENT_META_DATA Description of agent	
ATTRIBUTES	
agent_id	The numeric designation of the Keynote agent location taking the measurement. Example: "45588"
instance_id	The numeric designation of a specific agent instance within an agent location taking measurements. (Used internally by Keynote for load balancing purposes.) Example: "45589"
country	Country in which agent computer is located. Example: "USA"
description	The Name of the Keynote agent location taking the measurement. Example: "Streaming San Francisco Sprint"
region	Geographic region where the agent is located. Example: “West”
ip	IP address of Keynote agent computer taking measurement. Example: "205.163.212.42"
backbone	The name of the ISP used by an agent computer to take measurements. This property will be only present if profile is blank meaning there is no profile information for agent. Example: "Sprint"
weight	Deprecated (always 1).
city	City in which agent computer is located. Example: "San Francisco"

ELEMENT: **SLOT_META_DATA** Each instance represents a specific transaction measurement.	
ATTRIBUTES	
slot_id	Unique ID to describe a measurement setup for user. Example: "818829"
slot_alias	Name of measurement. Example: "GoldStream3"
pages	Number of pages in measurement script. Example: "1"
subservice	The type of engine being used to measure. STR means Streaming Perspective engine.
ELEMENT: **PAGE_META_DATA** Each instance represents a specific transaction measurement script steps.	
ATTRIBUTES	
page_alias	Script step name. Example: "Page1"
page_url	URL of the page being measured. example: "rtsp://acmestream.net/live/ reflector:43637"
player_type	The media player type used for the measurement. Example: “Real”
page_alias	Descriptive name for the transaction page, by default “Page1”.
page_seq	Script step ID. Always “1”.
ELEMENT: **DP_STR_MEASUREMENTS** Consists of 0 or more STR_MEASUREMENT elements.	

ELEMENT: **STR_MEASUREMENT** Each instance represents a specific streaming data point.	
ATTRIBUTES	
agent	Keynote identification for which agent took the measurement. example: "45588"
slot	Keynote identification for the measurement. example: "818829"
datetime	Time when the measurement was taken, the time zone is GMT. example: "2009-AUG-18 23:20:56"
target	The unique id of script part of measurement. Used internally by Keynote to manage capacity. Target ID numbers are subject to change without notice. example: "996568"
agent_inst	The numeric designation of a specific agent instance within an agent location taking measurements. (Used internally by Keynote for load balancing purposes.) example: "45589"
profile	Currently always “0”
ELEMENT: **STR_ERROR** Information about any reported errors.	
ATTRIBUTES	
code	The error code reported for the current measurement. “0” indicates no error. example” "-1072885325"
page	The page where the error occurred. Currently always “1”

category	The type of error. Separate STR_ERROR elements are provided for each error category. Four categories are reported: • check • player • traceroute • dns
ELEMENT: **STR_PAGE** This element encompasses one measurement.	
ATTRIBUTES	
page_seq	Since all Streaming Perspective measurements are Always “1”
ELEMENT: **STR_PAGE_PERFORMANCE** Contains Streaming Perspective measurement data.	
ATTRIBUTES	
protocol	The protocol used to transport the media Example: "RTSP"
connect_msec	Connection time: How long the agent took to connect to the stream Example: "1000"
avg_bit_rate	Average bit rate of the media, as calculated by the agent. Example: "4.04305"
rebuffer_events	Number of times playback was interrupted to rebuffer. Example: “1”
frust_delta_msec	Frustration time is made up of Connect Time plus Buffer Time plus Rebuffer Time. In milliseconds. Example: "12430"

packets_total	Total number of network packets the media player received, plus the number of packets lost. Example: "494"
wireless_sid	Not used -- but if the agent is wireless this will record the unique signal id.
rebuffer_msec	Number of seconds the media player stopped for rebuffering, if any. Example: "4000"
frame_rate	Frame rate of the video - 0 for audio.
resolve_msec	DNS lookup time.
packets_lost	Total number of network packets the media player lost.
wireless_ss	Not used, but if the agent is wireless this will record the signal strength.
buffer_msec	Initial buffer time. Example: "3000"
stream_source_url	The URL of the measured stream.
server_type	The server hosting the media.
packets_received	Total number of packets received. Example: "494"
playback_msec	How long the agent played the stream (milliseconds). "51000"
ELEMENT: **STR_PAGE_STATUS** Indicates success or failure of the measurement.	
ATTRIBUTES	

success	Successful completion of the measurement. Example: “1” (success); “0” (failure)
ELEMENT: **STR_PAGE_DETAILS** Contains network and events components for all streaming players.	
ATTRIBUTES	
event_delta	The length of the event in milliseconds.
record_seq	Element sequence ID.
connect_delta	TCP/IP connection delta for first connection.
dns_delta	DNS resolution delta for first Domain.
record_type	Recorder Type: ‘N’ – network ‘R’ – re-buffering event
start_msec	The offset of this element ‘N’ or ‘R’ from the start of the stream.
buffer_recv_count	Total count of received buffers.
buffer_sent_count	Total count of sent buffers.
sent_byte	Total number of bytes sent.
ip_address	The IP for the first connection.
received_byte	Total number of bytes received.
connection_count	The number of unique TCP connection established in the transaction. If the metric is not reported, the value is NULL. The value is the sum of all pages unique TCP connections.