

Tagging and tracking mobile transactions

Chez IBM SWG un arrangement financier s'appelle un 'play'

Pour cette présentation ce sera le « play mobile » ;O)

Régis David
regis_david@fr.ibm.com

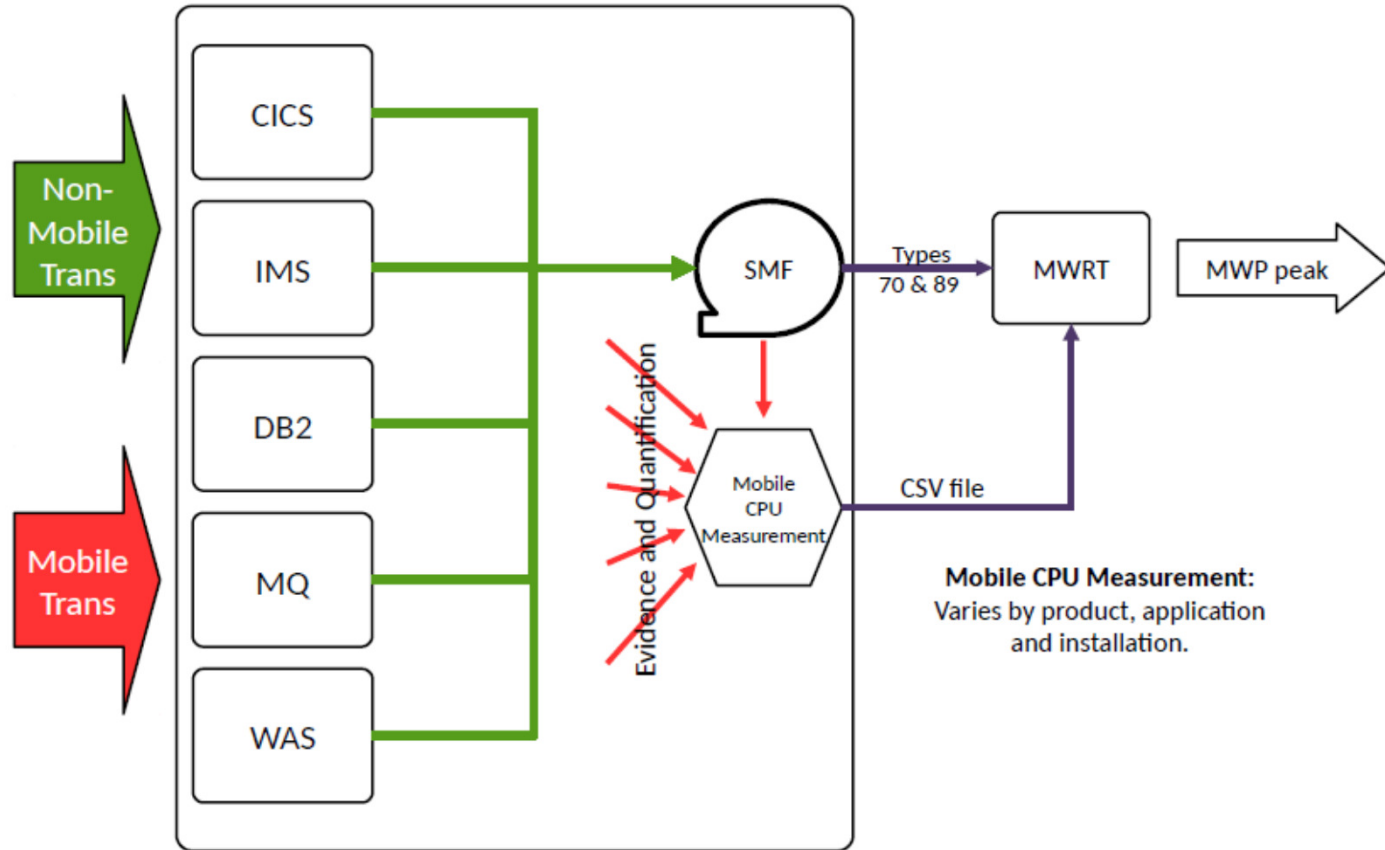


Tagging and Tracking for Mobile Workload Pricing - Overview

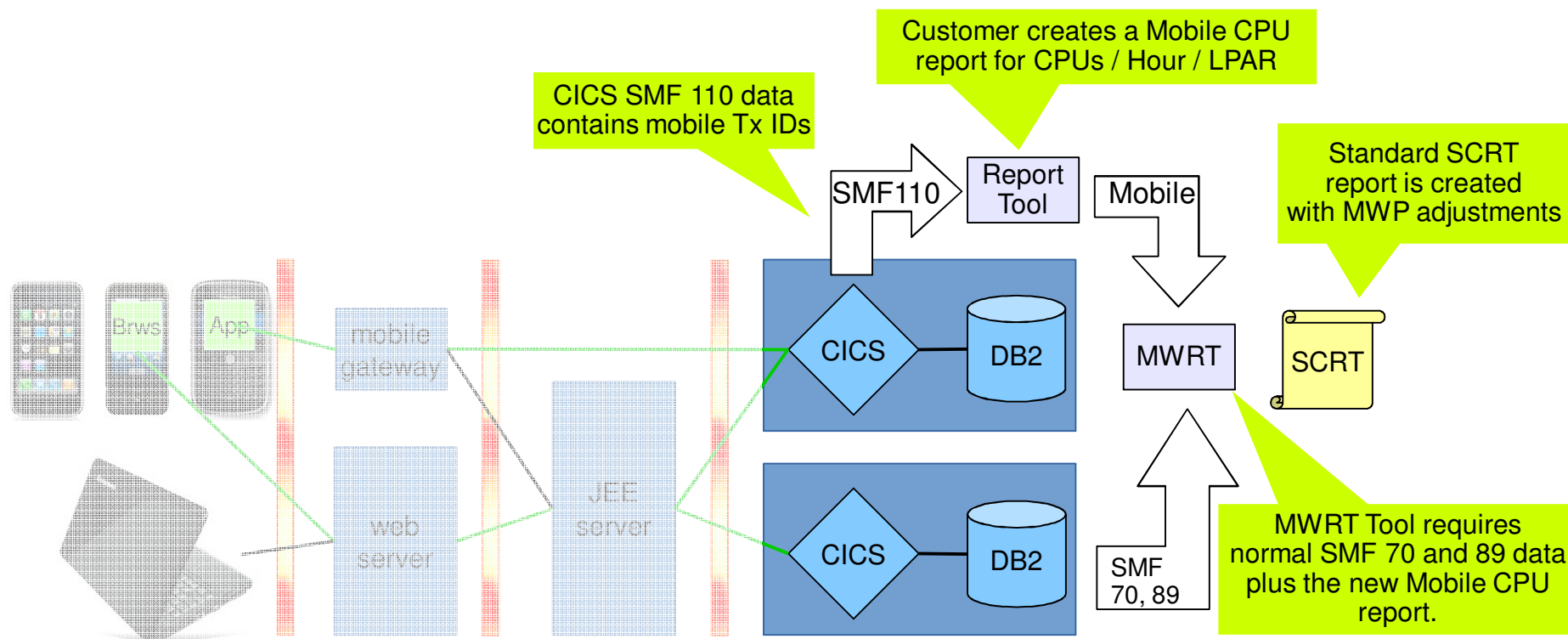
End-User	Middleware	Z/OS Sysplex	MWP Reporting
<p>Clear Definition Here!</p> <ul style="list-style-type: none">• “Transactions that are triggered on a Mobile Device”• “A Mobile Device is a Tablet or a Smartphone”• “Both mobile Browser or mobile App comply with MWP.”	<p>Tagging - The Unknown!</p> <p>How to forward a 'Mobile Tag' all the way through to a z/OS Defining Program?</p> <p>Prereq: Capacity to tag</p>	<p>Clear Definition Here!</p> <p>“z/OS Defining Programs: WAS, MQ, CICS, IMS, DB2”</p> <p>“GCP CPUs that are used in the Defining Programs to process Mobile workload are eligible for MWP”</p>	<p>Tracking Examples</p> <p>“SMF Report”</p> <p>“WLM Report”</p> <p>“Customer Reporting Tool”</p> <p>Overhead of some SMF classes might be a concern...</p> <p>MWRT Tool is available now</p>



Overview of Tagging and Tracking Process



Example of Tagging and Tracking Process



Format for Customer CSV file mobile transaction input to MWRT

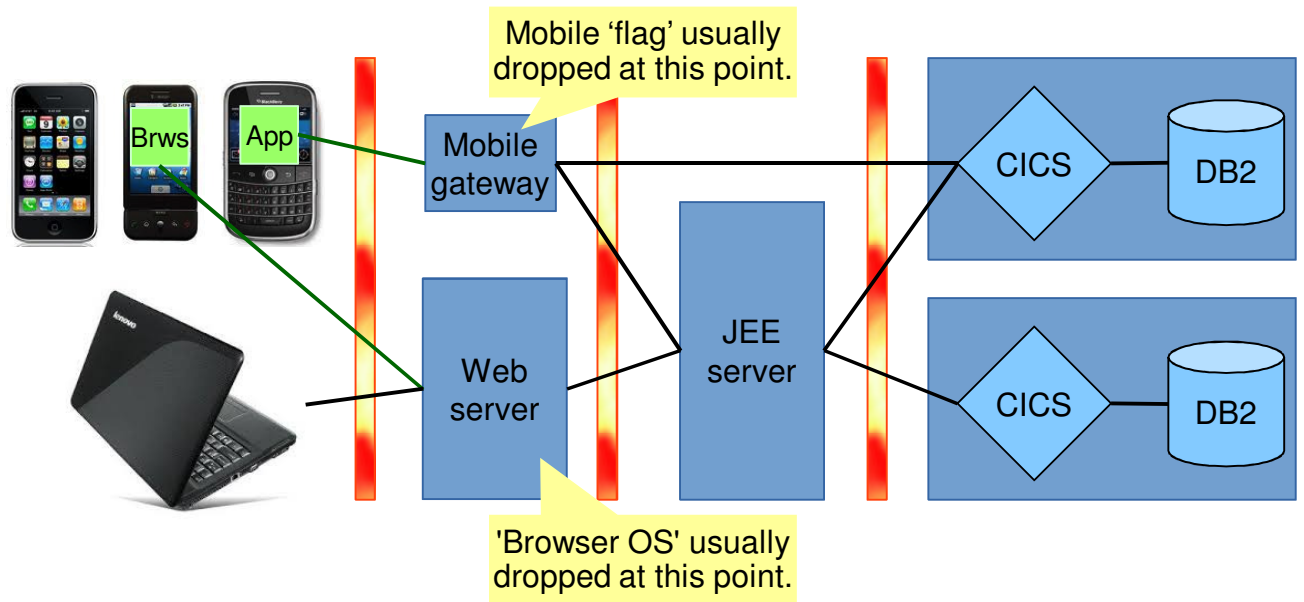
- The first row is the Product row containing the **product id** (or ids) for all the versions of a particular product family the customer is using for mobile workload processing.
- The Header row contains the date and the **LPAR names**
- Column one of the mobile transaction data rows is the **date**. The date must be in ISO-8601 format (e.g. “2014-03-21T03:00:00” to indicate three AM on March 21, 2014)
- Then each cell in the mobile transaction data row must have CPU seconds for that hour in that LPAR as a floating point number

“Product”	“5655-S97”	“5655-M15”	
“Date”	“2827-0F4D7:SYSF”	“2827-0F4D7:SYSG”	“2827-0F4D7:SYSH”
“2014-03-02T00:00:00”	3026	4103	229
“2014-03-02T01:00:00”	1954	3582	257
“2014-03-02T02:00:00”	2444	3876	262



How do customers track their mobile workload today ? (do they ?)

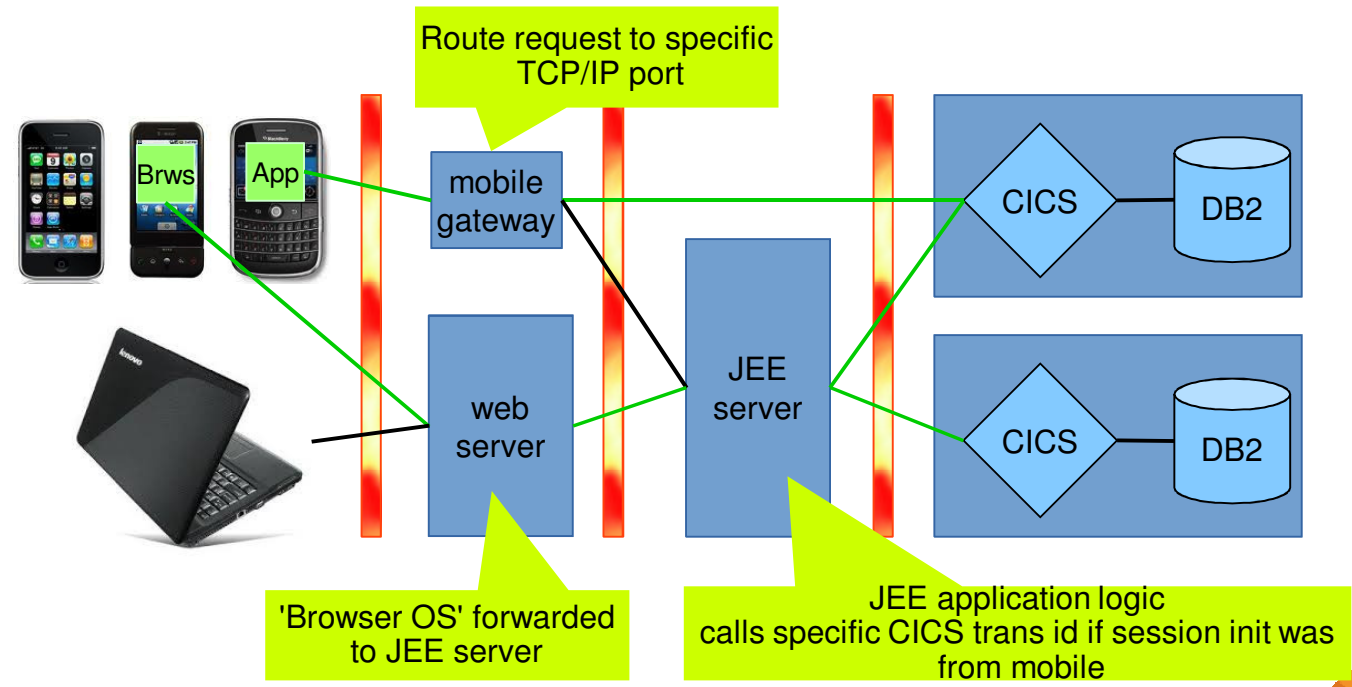
- Mobile Devices usually terminate at a web-server, JEE server, mobile gateway (e.g DataPower) or Worklight Server
- From there, back-ends – including z/OS applications and data – are accessed
- At the back-end level, typically a lot of services have shared-access from different service requesters
- Some customers have middleware components that are channel-aware and call back-end systems based on channel context (**but most do not have this**)
 La route de la SOA n'est elle pas semée de 'banalisation' du consommateur des services ?



How to forward a 'Mobile Tag'

- Network layer: route certain requests (from mobile gateway for example) to specific **TCP/IP ports**
- SOA Layer: in ESB / IIB / etc. route incoming SOA requests from mobile to a specific web service (**different URI**)
- JEE Layer: change context of back-end request (e.g **transaction id or UserId**) when session was established by a mobile device.

Examples:



Which Tracking mechanisms can be used with MWP ?

- Use an **individual LPAR** for mobile-only workloads. All defining programs in here can report their GCP CPUs as mobile CPUs.
- Build **individual subsystems** of the defining programs for mobile-only workloads. These can then report their GCP CPUs as mobile CPUs.
- Use same subsystems for mobile and non-mobile but create **different CPU reports for mobile CPU**.

How could this be done? Examples:

- CICS: Transaction id, TCP/IP port, User id → SMF110 Report
- IMS: LTERM, IMS Transaction Name, User id → Transaction Level Statistics x'56FA'
 - For Transaction Name can be SMF30
- MQ: Connection Type, Queue Name → SMF 116 Report
- DB2: JDBC stats like 'Program Name' → SMF 102 Report
- WAS: unique URL for mobile → SMF 120.9 Report

Note: this presentation contains examples of mobile tracking for CICS



CICS classics

Thank's CICS to keep track of originator information and/or userid in its SMF data

➤ CICS TG

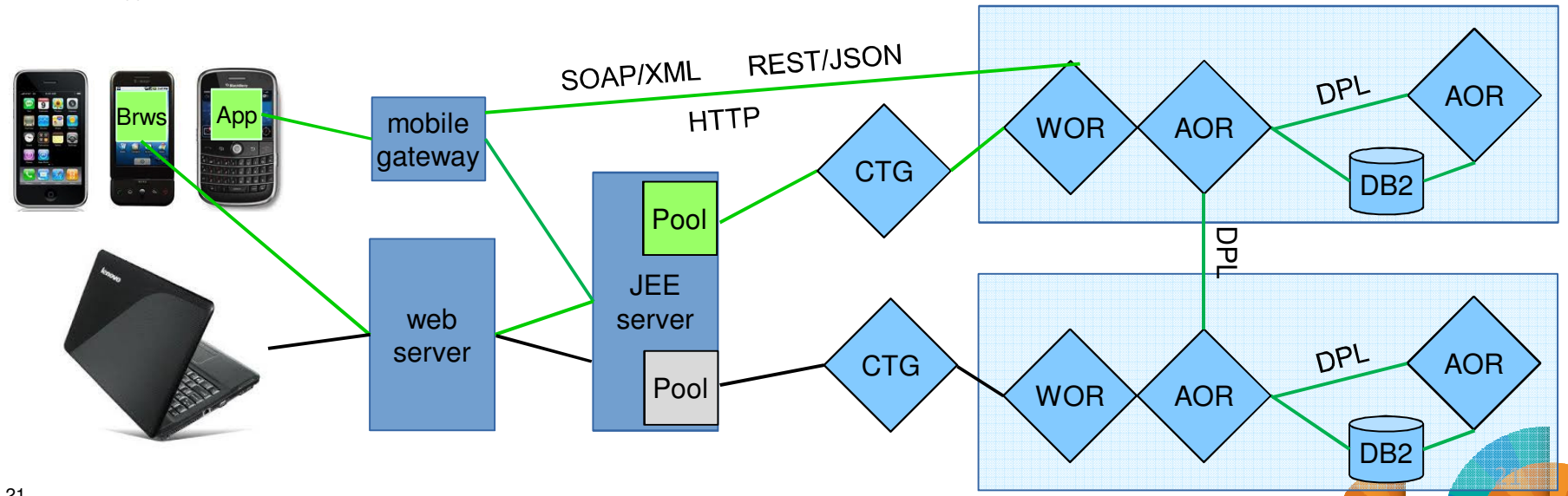
- Different JEE connection factories:
 - Shared CTGs, different userid
 - Different CTGs, different port
- Same JEE factory
 - Different coded-userid if permitted by the configuration and framework
- *Different Transaction Ids !!!!*

Could be... :

- Specific LPARs
- Specific CICS
- Application entry point !

➤ HTTP

- Different port, URL, userid (preset or not)
- *Different Transaction Ids !?!*



A manageable project

J'accompagne :O) c'est rapide et intéressant...et pourquoi se limiter au mobile...
(je me fais accompagner de Isabelle Bruneel, mon alter ego pour les détails IMS)

TAG

- Identification **des** architectures **des** chaînes de liaison
- Identification du maillon 'aware' le plus en amont
- Identification du premier maillon 'aveugle' en aval
- Choix du/des maillon(s) qui a un procédé de marquage 'traçable'

TRACE

- Identification des moyens fournis par l'infrastructure technique
- Identification des moyens fournis par les entêtes « maison »
- Identification des données SMF à 'récolter'

Collection sur les tranches de une heure pour chaque LPAR
MWRP...mon ami ;O)

Pourquoi se limiter au Mobile ?

Identification de l'utilisateur+canal = facturation/administration à la consommation... **DU CLOUD**



Mobilize the mainframe ;O)

Nous sommes au début de l'histoire

Outillage

- CICS Performance Analyser pour créer le fichier csv requis
 - CICS
 - On vous assiste
- IBM Transaction Analysis Workbench pour créer le fichier csv requis
 - Début 2015
 - IMS, CICS, DB2 WMQ, WAS...
 - On vous assiste

On peut faire mieux

- Que diriez vous d'utiliser la report class WLM ?
 - Requier des améliorations WLM, CICS, IMS, DB2, WMQ, WAS,.....
- On y travaille, avec vous si vous le souhaitez

