

Development of a mobile payment service with focus on evaluating API recording for automated mocking

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- Overview
 - The company
 - How do people pay in games?
 - Mobile payment
 - Software as a service (SaaS)
 - Tier based approach
- Implementation
 - Two types of providers
 - Tiny little differences
- How to test?
 - Mock request vs. recorded request
 - Simulate a real browser
 - Solution

- Founded 2007
- Started with creating and distributing java games
- Expanding to android and html5
- They are publishing HTML5 games

How do people pay in games?

PayPal™



Google wallet



People are playing on their mobile
Use the mobile to pay

France: Payouts

Price (EUR) incl. VAT	0.35	0.50	1.00	1.50	2.00	3.00	3.99	4.50
Price (EUR) excl. VAT	0.29	0.42	0.84	1.25	1.67	2.51	3.34	3.76

Germany: Payouts

Price (EUR) incl. VAT	0.49	0.99	1.99	2.99	3.99	4.99
Price (EUR) excl. VAT	0.41	0.83	1.67	2.51	3.35	4.19

Mobile Payments / Premium SMS API

Spain: Payouts

Price (EUR) incl. VAT	1.45	3.63	5.20	7.26
Price (EUR) excl. VAT	1.20	3.00	4.30	6.00

Mobile Payments / Premium SMS API

Extract the payment from the current product and build it as a service

How can we simplify worldwide payment for developers?

App Store Pricing Matrix

ZUR VERÖFFENTLICHUNG

Tier	US - US\$		Canada - CAD		Europe - Euro		UK - GBP		Japan - Yen		Australia - AU\$	
	Customer Price	Your Proceeds	Customer Price	Your Proceeds	Customer Price	Your Proceeds	Customer Price	Your Proceeds	Customer Price	Your Proceeds	Customer Price	Your Proceeds
Tier 1	0.99	0.70	0.99	0.70	0.79	0.48	0.59	0.36	115	81	1.19	0.76
Tier 2	1.99	1.40	1.99	1.40	1.59	0.97	1.19	0.72	230	161	2.49	1.58
Tier 3	2.99	2.10	2.99	2.10	2.39	1.45	1.79	1.09	350	245	3.99	2.54
Tier 4	3.99	2.80	3.99	2.80	2.99	1.82	2.39	1.45	450	315	4.99	3.18
Tier 5	4.99	3.50	4.99	3.50	3.99	2.43	2.99	1.82	600	420	5.99	3.81
Tier 6	5.99	4.20	5.99	4.20	4.99	3.04	3.49	2.12	700	490	7.99	5.08
Tier 7	6.99	4.90	6.99	4.90	5.49	3.34	3.99	2.43	800	560	8.99	5.72
Tier 8	7.99	5.60	7.99	5.60	5.99	3.65	4.99	3.04	900	630	9.99	6.36
Tier 9	8.99	6.30	8.99	6.30	6.99	4.25	5.49	3.34	1000	700	11.99	7.63
Tier 10	9.99	7.00	9.99	7.00	7.99	4.86	5.99	3.65	1200	840	12.99	8.27
Tier 11	10.99	7.70	10.99	7.70	8.99	5.47	6.49	3.95	1300	910	13.99	8.90
Tier 12	11.99	8.40	11.99	8.40	9.99	6.08	6.99	4.25	1400	980	14.99	9.54
Tier 13	12.99	9.10	12.99	9.10	10.49	6.39	7.49	4.56	1500	1050	15.99	10.18
Tier 14	13.99	9.80	13.99	9.80	10.99	6.69	7.99	4.86	1600	1120	16.99	10.81
Tier 15	14.99	10.50	14.99	10.50	11.99	7.30	8.99	5.47	1700	1190	17.99	11.45
Tier 16	15.99	11.20	15.99	11.20	12.99	7.91	9.49	5.78	1800	1260	18.99	12.08
Tier 17	16.99	11.90	16.99	11.90	13.99	8.52	9.99	6.08	2000	1400	19.99	12.72

Quelle: http://www.app-machine.com/hmcms_media/public/files/ApplePreis_Matrix.pdf

Implementation

- Ruby on Rails
- Postgres
- GitHub
- CoffeeScript
- Heroku

How can we simplify
provider implementation?

two different types of
providers

- JavaScript
 - Insert a script into the DOM of the page
 - Insert a signed object into the page
 - Execute a function after the page was loaded
- Redirect
 - Create query parameters
 - Sign those parameters
 - Redirect the user to providers page

How to test this?

Mock all request?

Simulate a real browser?

Record and playback requests

Test with a simulated browser
against a record version of the
provider page?

- Development of a proxy server
 - Problems with HTTPS
 - Not really usable in our case
- Solution
 - Mix of recorded and mocked request

Thanks!