



RED HAT[®] MOBILE APPLICATION PLATFORM

RED HAT
SUMMIT

Mobile API Management and Integration

A Reference Architecture and Demo

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Solution Architects @ GPTE
2 May 2017



RED HAT[®]
OPENSIFT
Container Platform

Blockchain. Bitcoin. Hype? Bubble? Or game changer?



What is Blockchain?

Blockchain is an open, distributed ledger

- that maintains a continuously growing list of ordered records called blocks
- each block is fault tolerant and cannot be altered retroactively
- blockchain use cases include: medical record keeping, transaction processing and identity management

Red Hat and Blockchain

Red Hat OpenShift enables blockchain applications and services development



MEMBERSHIP OFFERINGS PROJECTS EVENTS TRAINING ABOUT US

Linux Foundation's Hyperledger Project Announces 30 Founding Members and Code Proposals To Advance Blockchain Technology

FEBRUARY 09, 2016

Share This Article: [f](#) [t](#) [in](#)

Distributed Ledger Effort Establishes Open Technical Governance Structure, Receives Influx of Code Contribution Proposals

SAN FRANCISCO, Calif., Feb. 9, 2016 – The Linux Foundation, the nonprofit organization enabling mass innovation through open source, today is announcing new members from across the industry, a formal open governance structure and technical updates to the new [Hyperledger Project](#).

The [intent to form the Hyperledger Project](#), an open source project to advance the blockchain digital technology for recording and verifying transactions, was announced at the end of 2015. Founding members of the initiative represent a diverse group of stakeholders, including: ABN AMRO, Accenture, ANZ Bank, Blockchain, BNY Mellon, Calastone, Cisco, CLS, CME Group, ConsenSys, Credits, The Depository Trust & Clearing Corporation (DTCC), Deutsche Börse Group, Digital Asset Holdings, Fujitsu Limited, Guardtime, Hitachi, IBM, Intel, IntellectEU, J.P. Morgan, NEC, NTT DATA, R3 [Red Hat](#), State Street, SWIFT, Symbiont, VMware and Wells Fargo.



RED HAT
OPENSIFT
Dedicated

OpenShift Blockchain Initiative

Technology for a new generation of transactional applications.

What is Bitcoin?

Bitcoin is an implementation of Blockchain

- specific to the needs of the financial services industry
- except it is more transparent than most financial services instruments and services

Show me the bitcoins



Business Opportunity

Bitcoin investors want to trade anywhere, and they need financial pricing in real-time

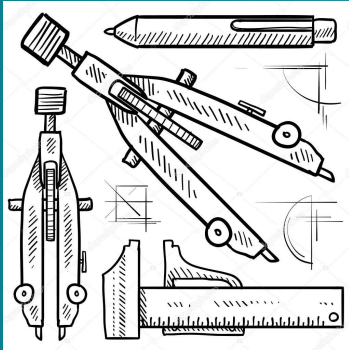
- Consumers and investors demand Bitcoin information everywhere even on mobile
- “**gpteBTC**”, a fictitious Bitcoin information provider, aims to provide financial information from existing Bitcoin exchanges to the finger-tips of their clients

Business Opportunity

Bitcoin investors and owners want to trade with one another anywhere, and they need financial pricing in real-time

- Enabling mobile channels
- Growing an ecosystem
- Increasing reach of the service provider
- Powering new business models
- Driving new innovation on the mobile front

Architecturally speaking



Solution Approach

Add an elastic technology layer that scales to the demand of the marketplace

gpteBTC cliente

Red Hat technology

Bitcoin information

Network / Marketplace / Community

Technology Infrastructure

Data

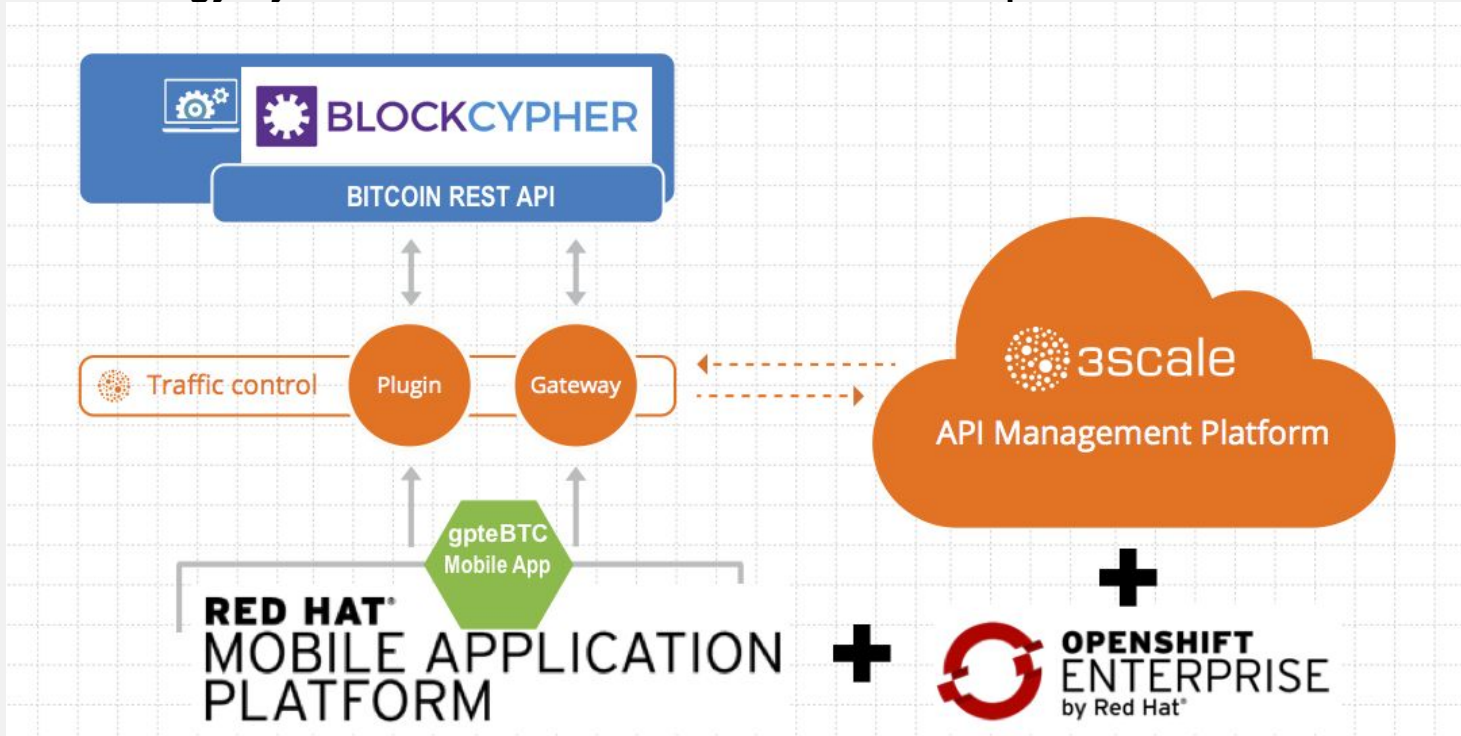
Solution Approach

Bitcoin investors and owners require mobile access to financial information, and that information platform must scale elastically

- Introduction of a scalable platform for Bitcoin data consumers
 - **Red Hat Mobile Application Platform (RHMAP)** for MBaaS hosting and application development
 - **Red Hat 3Scale API Management Platform** for API management and integration
- Now comes the architectures and use cases...

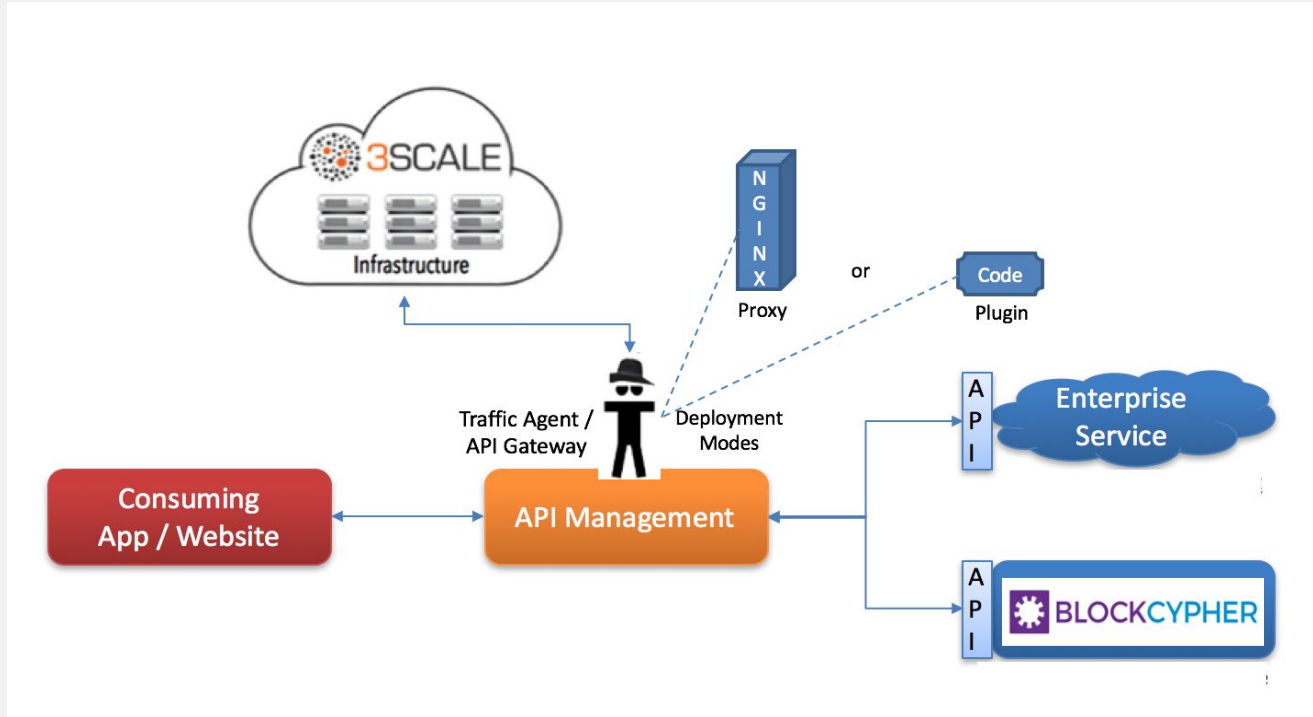
Solution Architecture

The elastic technology layer that scales to the demand of the marketplace



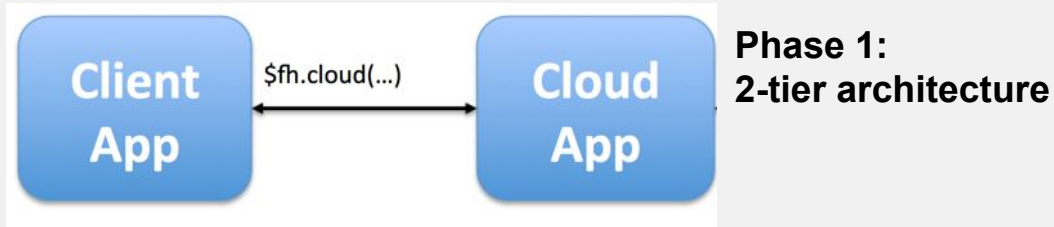
3Scale Deployment Architecture

An integration layer for various enterprise services, including a Bitcoin information service

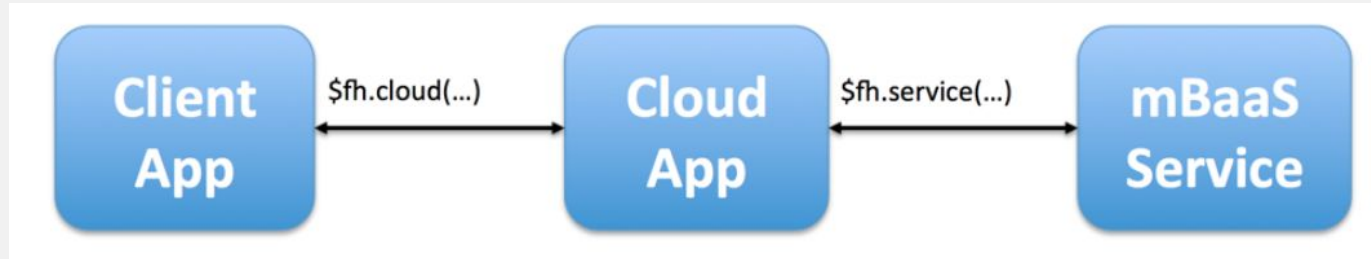


Mobile Application Architecture

The gpteBTC mobile application is built on NodeJS and FeedHenry APIs, using and hosted on RMAP

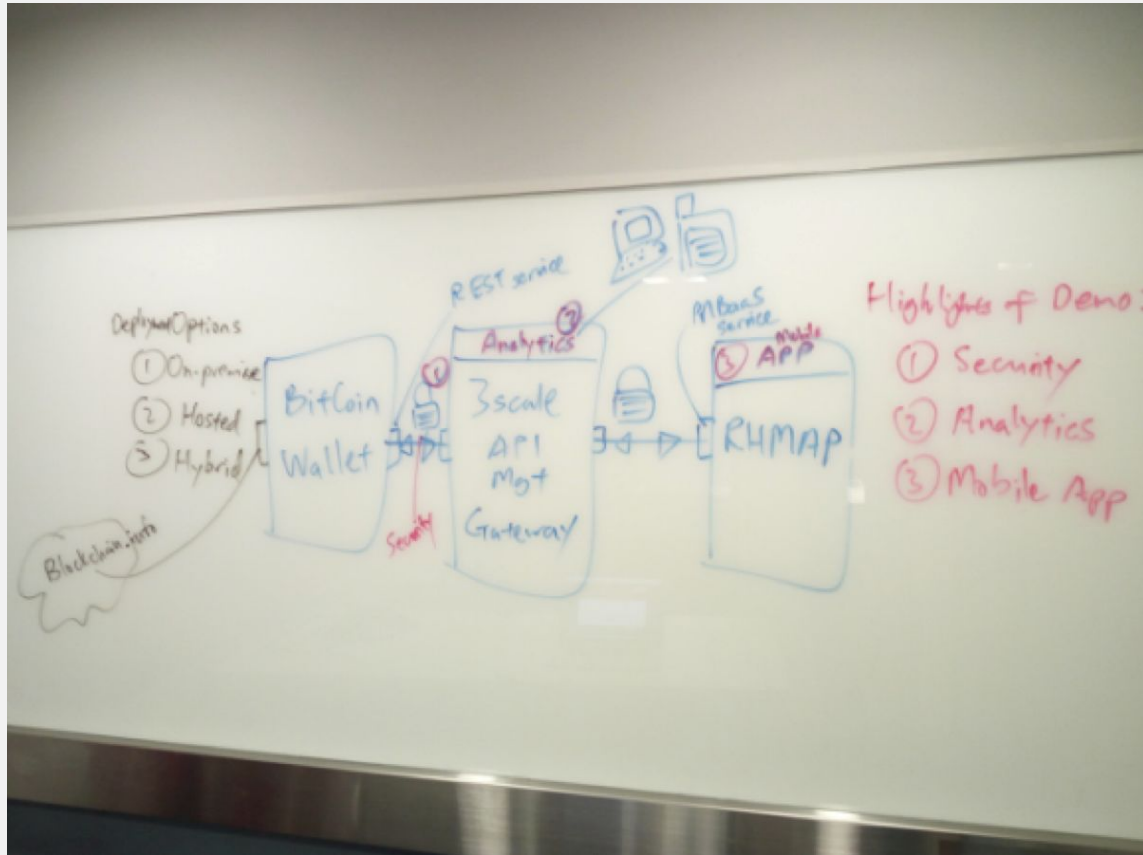


Phase 2:
3-tier architecture



Design Best Practice

Always start with Whiteboarding :-)



Let's be practical



Use case: Bitcoin REST Service

Implement a **MBaaS** application for a hosted **Bitcoin REST** service

- [BLOCKCYPHER](#) is a Bitcoin service provider
- Payment processing and acceptance
- Blockchain ledger hosting

Use case: Bitcoin REST Service

Execute these commands in a terminal window

```
# retrieve blocks and transactions
```

```
curl -s https://api.blockcypher.com/v1/btc/main
```

```
# get a couple transactions from a known address (supposedly Silk Road)
```

```
curl https://api.blockcypher.com/v1/btc/main/addrs/1rundZJCMJhUiWQNF5uT3BvisBuLxkAp?limit=2
```

```
# get one of the two transactions (a big one)
```

```
curl https://api.blockcypher.com/v1/btc/main/txs/a40c283de4c26b027a5734ff89ce78ade1220fc313befa107ec6c245c24bdec0
```

```
# retrieve the block it was included in by height
```

```
curl https://api.blockcypher.com/v1/btc/main/blocks/319957
```

Use case: Bitcoin REST Service

3Scale API Management Platform is required for high-valued service management functionality, like

1. API Access Control
2. Developer Portal for ease of API re-use
3. Billing and Metric Measurement
4. Service aggregation layer for multiple enterprise services
5. Proxy layer for backend enterprise services



And the demonstration begins

Demo

2 crucial technology roles, supported on the Red Hat OpenShift Container Platform

Mobile App Developer



Integration Architect

Demo

Perspective of the Mobile App Developer

The screenshot displays the Red Hat Mobile Application Platform (STMBCD) interface. At the top, the navigation bar includes the Red Hat logo, the text "MOBILE APPLICATION PLATFORM", and a menu with options: Projects, Analytics, Resources, Drag & Drop Apps, Services & APIs, Admin, and Docs. Below this, a secondary navigation bar shows "STMBCD" and a dropdown menu with options: Apps, Cloud Apps & Services, Connections, Resources, Lifecycle, Forms, Reporting, and Settings. The main content area is titled "STMBCD" and "Apps, Cloud Apps & Services". It features three panels, each with a "+" icon in the top right corner:

- Apps:** Contains a card for "gpteBTCclientHTML" (Cordova), updated 15 hours ago. The card includes a GitHub icon and a "Copy" button with the URL: `git@git.tom.redhatmobile.com:gpte/STMBCD-Cordova-App.git`.
- Cloud Code Apps:** Contains a card for "gpteBTCcloud" (Node.js Cloud App), updated 3 hours ago. The card includes a JavaScript icon and a "Copy" button with the URL: `git@git.tom.redhatmobile.com:gpte/STMBCD-STMBCCloud.git`.
- MBaaS Services:** Contains a card for "gpteBTCmbaas - Connector Service", updated 17 minutes ago. The card includes a Red Hat logo icon and a "Discover" button.

Demo

Visit <http://people.redhat.com/cdarby/block/>

OR

Install the gpteBTC mobile app



Download Artifact

Download

-- or --

Use this OTA link or scan the QR code to install this build directly onto a device

<http://henr.ie/2p1rxBC>



Demo

Perspective of the Integration Architect

Documentation

Dashboard



Dashboard Developers **Applications** Billing Analytics API Developer Portal Settings

[Account 'GPTE'](#) > [Application 'Red Hat Summit 3Scale-RHMAP-Bitcoin Demo'](#) > [Analytics](#) | [API Request Log](#)

Red Hat Summit 3Scale-RHMAP-Bitcoin Demo

[Edit](#) [Delete](#)

Description

Welcome to the Bitcoin Services Demo. Bitcoin is a digital currency, based on the implementation of Blockchain technology. Blockchain is a open, distributed ledger that maintains a continuously growing list of ordered records called blocks each block is fault tolerant and cannot be altered retroactively blockchain use cases include: medical record keeping, transaction processing and identity management Now, what if blockchain service users require mobile access and API management. Introducing Red Hat Mobile Application Platform for MBaaS hosting and development 3Scale APICast for API management and integration This set of assets comes with architecture diagrams and use cases... ~ Pls send Qs to hong@redhat.com ~

Service

[Echo API](#)

State

[Live suspend](#)

API Credentials

User Key

cd9f81747d0c365cda0233f3217b76df

Application Plan: Unlimited

FEATURES

Unlimited Greetings ✓

24/7 support ✓

Unlimited calls ✓

[Customize](#)

Change Plan

[Change](#)



Dashboard Developers **Applications** Billing Analytics API Developer Portal Settings

[Accounts](#) [Messages](#) [Forum](#)

[Accounts](#) > [Account 'GPTE'](#) > [1 Application](#) | [1 User](#) | [0 Invitations](#) | [0 Group Memberships](#) | [0 Invoices](#)

GPTE: Account Summary

[Send message](#) [Edit](#) [Delete](#)

Organization/Group Name	GPTE
Status	Approved
Administrator	John Doe (hong+test@redhat.com)
Signed up on	September 07, 2016 11:08

Billing Status

✓ Monthly billing is enabled.

[Disable](#)

Account Plan: Default

[Customize](#)

Application

Name	Red Hat Summit 3Scale-RHMAP-Bitcoin Demo
Service	Echo API
Plan	Unlimited
State	Live



[Privacy](#) [Refunds](#) [Contact](#)

Powered by 3scale

Demo

Perspective of the Integration Architect

Documentation

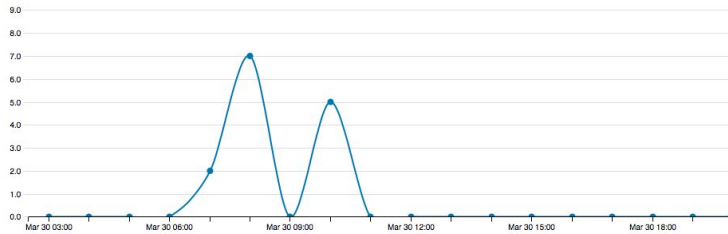


Dashboard Developers Applications

Account 'GPTE' > Application 'Red Hat Summit 3Scale-RHMAP-Bitcoin Demo' > Analytics | API Request Log

Usage statistics for Red Hat Summit 3Scale-RHMAP-Bitcoin Demo / GPTE

Show last 24 hours 7 days 30 days 12 months from 03/30/2017 until 03/31/2017 per hour 24.0 Hits



Method	From	To
Hits	30 Mar 2017 03:00:00 UTC	31 Mar 2017 02:59:59 UTC
+ get-ledger	30 Mar 2017 03:00:00 UTC	31 Mar 2017 02:59:59 UTC

Using time zone GMT+00:00:00 UTC

Privacy Refunds Contact



Dashboard Developers Applications Billing Analytics API Developer Portal Settings

Overview ActiveDocs

Definition

Integration

Application Plans

Settings

Alerts

Echo API > Integration

[edit integration settings](#)

Integration settings

Deployment Option: APICast
Authentication: API Key (user_key)

Configure your API gateway in the staging environment. Once your staging environment is green you can deploy the gateway to the 3scale production environment.

Staging: configure & test your integration [documentation](#)

[deployed](#) | [deployment history](#)



API

Private Base URL*

[Use Echo API](#)

Private address of your API that will be called by the API gateway.



API GATEWAY

Public Base URL*

Public address of your API gateway in the staging environment. You can use this address to call the API for testing purposes.

MAPPING RULES

Verb	Pattern		Metric or Method (Define)
GET	/v1/btc/main	1	hits
POST	/v1	1	hits

[Add Mapping Rule](#)

Demo

Perspective of the Integration Architect



Dashboard Developers Applications Billing Analytics API Developer Portal Settings

Account > CTFE > Application > Red Hat Summit 3Scale-RHMAP-Bitcoin Demo > Analytics | API Request Log

API Request Log

Here you can the latests API requests from: Red Hat Summit 3Scale-RHMAP-Bitcoin Demo

Purge

Time: 2017-04-05 04:21:03 UTC

Code: 200

Request:

```
["path":"\\out_of_band_authrep_action_and_report",method:"GET",params":{"headers":{"host":"api-2445581559610.staging.apicast.io","x-forwarded-for":"116.15.130.27","x-forwarded-proto":"https","connection":"close"},"accept":"","x-real-ip":"116.15.130.27","user-agent":"curl/7.51.0"},"headers":{"x-ratelimit-remaining":"95","content-type":"application/json","connection":"close","content-length":"773","access-control-allow-headers":"Origin,X-Requested-With,Content-Type,Accept","access-control-allow-methods":"GET,POST,PUT,DELETE","access-control-allow-origin":"","body":{"name":"BTC.main","height":460452,"hash":"0000000000000010cab16038a4b9ef116d7c70458fa3fa8d24d26e577b214"},"time":{"2017-04-05T04:20:33.129712482Z},"latest_url":"https://api.blockcypher.com/v1/btc/main/blocks/0000000000000010cab16038a4b9ef116d7c70458fa3fa8d24d26e577b214","previous_hash":"00000000000000202cfc2bf4671972ee68fb38f1d19e7fd71ee6c9d","previous_url":"https://api.blockcypher.com/v1/btc/main/blocks/00000000000000202cfc2bf4671972ee68fb38f1d19e7fd71ee6c9d"},"peer_count":891,"unconfirmed_count":23192,"high_fee_per_kb":195934,"medium_fee_per_kb":100483,"low_fee_per_kb":68350,"last_fork_height":457814,"last_fork_hash":"000000000000001363c3b4a45f5ecab314696eb5fbc5ac0e83d94845776"}]
```

Associated usage: hits: 1.

Time: 2017-04-05 04:17:46 UTC

Code: 200

Request:

```
["path":"\\out_of_band_authrep_action_and_report",method:"GET",params":{"headers":{"host":"api-2445581559610.staging.apicast.io","x-forwarded-for":"34.197.251.207","x-real-ip":"34.197.251.207"},"headers":{"x-ratelimit-remaining":"98","content-type":"application/json","connection":"close","content-length":"771","access-control-allow-headers":"Origin,X-Requested-With,Content-Type,Accept","access-control-allow-methods":"GET,POST,PUT,DELETE","access-control-allow-origin":"","body":{"name":"BTC.main","height":460451,"hash":"00000000000000202cfc2bf4671972ee68fb38f1d19e7fd71ee6c9d"},"time":{"2017-04-05T04:14:57.5858431Z},"latest_url":"https://api.blockcypher.com/v1/btc/main/blocks/00000000000000202cfc2bf4671972ee68fb38f1d19e7fd71ee6c9d"},"peer_count":892,"unconfirmed_count":24271,"high_fee_per_kb":196651,"medium_fee_per_kb":100484,"low_fee_per_kb":68350,"last_fork_height":457814,"last_fork_hash":"000000000000001363c3b4a45f5ecab314696eb5fbc5ac0e83d94845776"}]
```

Associated usage: hits: 1.

#redhat #rhhsummit

NO MATCH ERROR

Response Code* 404

Content-type text/plain, charset=us-ascii

Response Body No Mapping Rule matched



CLIENT

API test GET request /v1/btc/main

Optional GET request to a API gateway endpoint. We will use this call to validate your API gateway setup using credentials of the first live application. You can try it yourself by copying the following command into your shell:

```
curl "https://api-2445581559610.staging.apicast.io:443/v1/btc/main?user_key=cd9f81747d0c365cda0233f3217b76df"
```

Hit the test button to check the connections between client, gateway & API.

Update & Test Staging Configuration

Production: APICAST Cloud Gateway

APICAST Cloud Gateway deployed

The APICAST production environment has the same configuration as the staging environment. The public endpoint is different and it runs in a production environment



API

Private Base URL https://api.blockcypher.com:443



API GATEWAY

Public Base URL https://api-2445581559610.apicast.io:443



CLIENT

API test GET request curl "https://api-2445581559610.apicast.io:443/v1/btc/main?user_key=cd9f81747d0c365cda0233f3217b76df"

Deploy

intact

Powered by 3scale

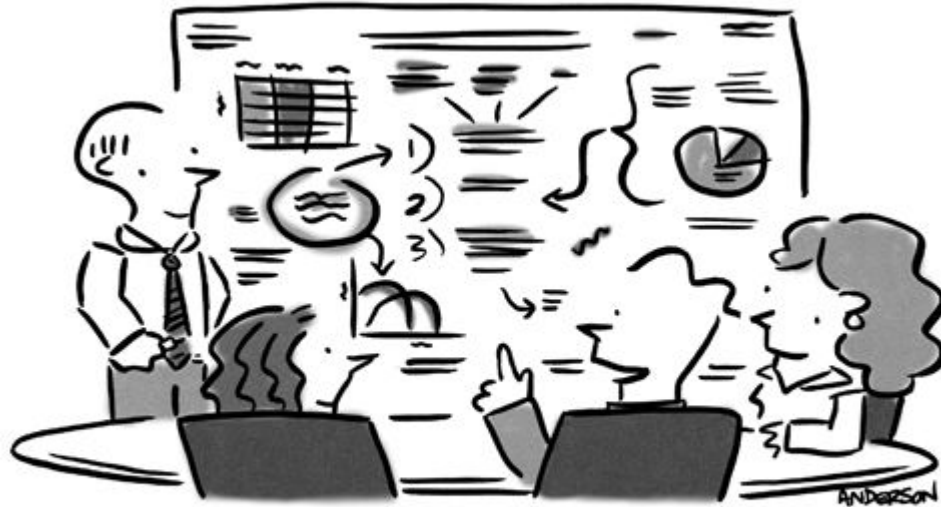


Demo

Come on, demo it already !

© MARK ANDERSON

WWW.ANDERTOONS.COM



"I've got it! How about a funny picture!
People love funny pictures!"

Demo

Visit <http://people.redhat.com/cdarby/block/>
OR install the **gpteBTC** mobile app

1. Test drive the [gpteBTC app](#)
on your web browser or on your phone

Bitcoin Services Demo @ Red Hat Summit 2017 Mobile API Management and Integration

You are accessing Bitcoin information on a mobile app, courtesy of Red Hat Mobile Application Platform.

- Bitcoin Ledger (direct)
- Bitcoin Ledger (3Scale)

Show Me The Bitcoins!

Here is the Bitcoin information you wanted

Source: Called via 3Scale

Name: BTC.main

Height: 460451

Hash: 00000000000000000202cffc2bf4671972ee68fb383f1d19e7bf7dd71ee6cb9d

QUERY BITCOIN TRANSACTION INFO

- Bitcoin Transaction 1
- Bitcoin Transaction 2
- Bitcoin Transaction 3

Show Me The Bitcoins!

Here is the Bitcoin information you wanted

Source: Direct connection to Bitcoin API

Block Hash: 0000000000000000747cf5ccce62fde7da42ece32709382abeb7d95960d75980

Block Height: 292998

Transaction Hash: 279ccbbab8605390a85fe6f0e4fb04ec1946ee6033054b16fec72e1304742d5d

Size: 932 Bytes

Value: 293710000 Satoshis

Fees: 0

Confirmation: 168850

Confirmed: 2014-03-29T01:15:20Z

Received: 2014-03-29T01:15:20Z

Demo

cURL those API calls !

2. Test the [API mapping](#) to the Bitcoin REST service - courtesy of Red Hat 3Scale APICast

```
bash 361 bash 362
You have mail.
eval "$({rbenv init -})"
Docker-Swarm:~ hchin$ curl "https://api-2445581559610.staging.apicast.io:443/v1/btc/main?user_key=cd9f81747d0c365cda0233f3217b76df"
{
  "name": "BTC.main",
  "height": 461230,
  "hash": "000000000000000001bd7d81fded6ccd8f11df215df76512dd13ca170c3fc8cb",
  "time": "2017-04-10T07:11:08.630553832Z",
  "latest_url": "https://api.blockcypher.com/v1/btc/main/blocks/000000000000000001bd7d81fded6ccd8f11df215df76512dd13ca170c3fc8cb",
  "previous_hash": "0000000000000000dd8617c862b109eed72e09ec0fea4840e8f0b4250a2329"
,
  "previous_url": "https://api.blockcypher.com/v1/btc/main/blocks/0000000000000000dd8617c862b109eed72e09ec0fea4840e8f0b4250a2329",
  "peer_count": 1028,
  "unconfirmed_count": 6749,
  "high_fee_per_kb": 151216,
  "medium_fee_per_kb": 103489,
  "low_fee_per_kb": 73230,
  "last_fork_height": 457814,
  "last_fork_hash": "00000000000000001363c3b4a45f5ecab314696eb5fbc5ac40e83d94845776"
}
Docker-Swarm:~ hchin$
```

1. Execute this command

2. Observe JSON response

Demo

Love that Swagger

3. Learn how [Swagger](#) is used in Bitcoin API integration on the [gpteBTC Developer Portal](#)

index.html 3scale Login App Studio Red Hat Summit 2017, Mobile API Management and Integr...

RED HAT DOCUMENTATION PLANS SIGN IN

gpteBTC Developer Portal

Register Register with STMBCD developer portal to use the STMBCD Bitcoin API

Query the API Query the STMBCD Bitcoin API now

Create your app Start coding and create awesome applications with the STMBCD Bitcoin API

Pick your plan

BASIC

Features	Limits
✓ Unlimited Greetings	∞ No limits

Signup to plan Basic

UNLIMITED

Features	Limits
✓ Unlimited Greetings	∞ No limits
✓ 24/7 support	
✓ Unlimited calls	

Signup to plan Unlimited

Run your requests

```
$ curl -v https://api.blockcypher.com/v1/btc/main/
```

REQUEST	RESPONSE
> GET / HTTP/1.1 > User-Agent: curl/7.27.0 > Host: https://api.blockcypher.com > Accept: */* >	< HTTP/1.1 200 OK < Content-Type: text/plain; charset=utf-8 < Connection: close echo

```
1 {
2   "name": "STMBCD",
3   "description": "This is an inventory of APIs available for STMBCD cliente.",
4   "image": "http://i.imgur.com/FcTYp34.png",
5   "tags": [
6     "Financial Services",
7     "Bitcoin",
8     "Blockchain"
9   ],
10  "created": "2017-04-24",
11  "modified": "2017-04-24",
12  "url": "http://worldcompany.com/apis.json",
13  "specificationVersion": "0.14",
14  "apis": [
15    {
16      "name": "Latest Blockchain Summary API",
17      "description": "The returned object contains a litany of information about the blockchain,
18      including its height, the time/hash of the latest block, and more.",
19      "stmbcd": {
20        "service_id": "2555417741587",
21        "swagger_system_name": "STMBCD"
22      },
23      "image": "https://enterprisedemo.3scale.net/images/circle2.png",
24      "humanURL": "https://www.blockcypher.com/",
25      "baseURL": "https://api.blockcypher.com/v1/btc/main",
26      "tags": [
27      ],
28      "properties": [
29        {
30          "type": "X-signup",
31          "url": "https://stmbcd.io/"
32        },
33        {
34          "type": "Swagger",
35          "url": "https://stmbcd.io/swagger/spec/blockchain.json"
36        }
37      ],
38      "contact": [
39        {
40          "FN": "STMBCD",
41          "email": "info@stmbcd.com",
42          "X-twitter": "STMBCD"
43        }
44      ]
45    }
46  ]
47 }
```

Demo

Give me some of that NodeJS

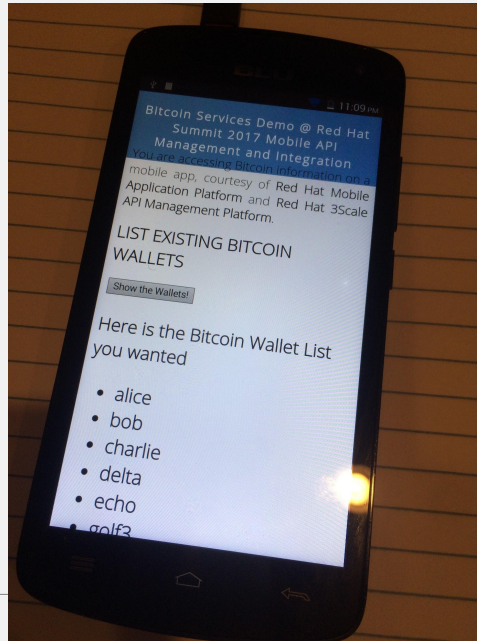
4. View the [source code](#)

```
btcscale.js x  btcloud.js x
1 var express = require('express');
2 var request = require('request');
3 var bodyParser = require('body-parser');
4 var cors = require('cors');
5
6 function BTCQuery() {
7   var query = new express.Router();
8   var loc = 'https://api.blockcypher.com/v1/btc/main';
9   var apiloc = 'https://api-2445581559610.staging.apicast.io:443/v1/btc/main?user_key=cd9f81747d0c365cda02';
10  var height = '454448';
11
12  query.use(cors());
13  query.use(bodyParser());
14
15  query.get('/', function(req, res) {
16
17    console.log(new Date(), 'Bitcoin Service GET / req.query=', req.query);
18
19    var selection = req.query.selection;
20
21    console.log("req.body=" + JSON.stringify(req.body));
22
23    console.log("selection = " + selection);
24
25    if (selection == "btclledger_direct") {
26      console.log('>> Direct connection to Bitcoin API');
27
28      request(loc, function(error, response, body) {
29        console.log("Body received from API call\n" + body);
30
31        var stuff = JSON.parse(body);
32
33        var output = {
34          "source" : "Direct connection to Bitcoin API",
35          "data" : stuff
36        }
37
38        console.log("Output sending to the client\n" + JSON.stringify(output));
39
40        res.json(output);
41      })
42    }
43  })
44 }
```

Demo

Go mobile

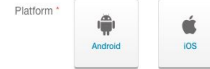
5. Install and test the [gpteBTC app](#) on your smartphone



Build a Binary

Here you can build binaries of this App for installation on device

Client Binary



Cloud App Connection

Select Cloud App *

Pick which Cloud App you would like this Binary to talk to

Connection Tag * Edit Tag

Connection Tags must be in Semantic Version format, e.g. 0.0.1. See: <http://semver.org>

Build

Building for android

Completed

Artifact History

Showing 1 to 3 of 3 Items

Platform	App Version	Date	Status	Type	Credential	Git Branch/Tag	Git Commit	View Logs	Download
Android	19	2017-03-17 09:54:23	Success	Debug		Branch : master	5a1e606b47c4cb8	View Logs	Download
Android	18	2017-03-17 09:53:52	Success	Debug		Branch : master	5a1e606b47c4cb8	View Logs	Download
Android	10	2017-03-17 09:34:26	Success	Debug		Branch : master	4b9191984ed0b98b	View Logs	Download

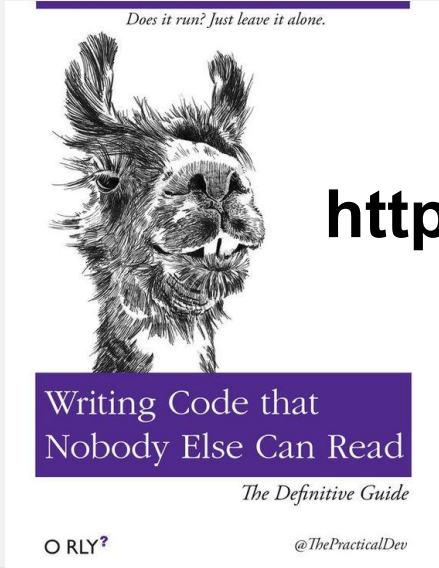
Build artifacts can be retrieved for up to 90 days.

3.16.0 (Core MAP (US-TOM)) - Copyright © 2017 Red Hat

Demo

Be creative. Code away !

6. Fork the code from [Github](#)



<https://github.com/honghuac/gpteBTC>

Gain expertise using phrases similar to "If it ain't broke, don't fix it"



Beginner's Guide to
Using Convoluted Coding Practices to Piece Together a Somehow Functional Product

{rand(1,15)}th Edition

O'REILLY®

That's all folks?



Mobile Lightning Talks

MongoDB.
Artificial Intelligence.
App Security.
Microservices.
Come get some.

Participation

[Dashboard](#)
[Schedule](#)
[My interests](#)

Event

[Content catalog](#)
[Agenda at a glance](#)

★ LT122009 - Mobile lightning talks

Sebastien Blanc - Software Engineer, Red Hat

Juana Nakfour - Senior Mobile Technical Account Manager, Red Hat

Hong Hua Chin - Principal Solutions Architect, Red Hat

Chad Darby - Principal Solutions Architect, Red Hat

Summers Pittman - Sr. Software Engineer, Red Hat

Easily secure your mobile solutions with RHMAP and Red Hat SSO

Speakers:

Sebastien Blanc, Red Hat
Summers Pittman, Red Hat

As a mobile developer, when you deal with security, you often have to dive into the details of bloated security specifications and APIs to solve issues like Single Sign Out (SSO), social login, OAuth2 and OpenID Connect integration. You want to be able to focus more on your core business, and for that purpose you use Red Hat Mobile Application Platform (RHMAP) on OpenShift. This presentation talks about various security issues your mobile applications and RESTful microservices will need to solve. On client side, we'll see the challenges to overcome from an hybrid app as well as a native app perspective: embedded web view versus external browser, URL schema for callback, local storage for tokens, refresh access tokens transparently...

What about if you could delegate security intricacy to security expert? Security can be easy if you have the right tools! This is exactly what Red Hat Single Sign-On (SSO) on OpenShift is for. RH-SSO is an open source Identity and Access Management solution that can secure your applications and services with little to no code. If you think security topic is hard to tackle, join us! We'll make OAuth2 framework, OpenID Connect protocol, JWT (Json Web Token), and even encryption easy to understand. With some drawings, chatting and demos, tokens are fun and OpenID Connect will have no secret to you!

Artificial Intelligence Tools For Mobile Development

Speaker:

Juana Nakfour, Red Hat

Artificial Intelligence is a broad set of technologies getting immense traction and accelerated adoption rate on mobile devices. Predictive Analysis, Object Detection and Natural Language processing are the leading AI technologies making their way down to mobile devices and immersing in user experiences. Today, it is imperative that mobile apps have some element of AI to provide superior and seamless user experience.

In this presentation, we will describe the current trends in AI tools for mobile devices. Specifically discussing the current big players in the field and their tools offerings. We will also cover trends in small startups pushing for innovative AI tools on mobile devices. The current trend of moving some AI processing from big clouds down to mobile chipsets for local processing will also be covered. After covering the high level trends we will dive down into current tools and sdk's available for native and hybrid mobile applications. Specifically in the areas of Natural Language processing and Object Detection/Tracking. At the end of the presentation we will describe how to integrate one of the Natural Language processing sdk's into our Red Hat Mobile Application templates. Describe the code steps and perform a live demo.

RHMAP MBaaS Services and RESTful APIs (MongoDB and MySQL)

Speakers: Chad Darby, Red Hat; Hong Hua, Red Hat

In this talk, we will demonstrate how to create an RHMAP MBaaS service that exposes a RESTful API for CRUDL. The first version of the MBaaS service will store data in a MongoDB database hosted on the RHMAP platform. In the second version of the app, we'll connect to an external MySQL database hosted in the Amazon cloud. During the development of the MBaaS service, we will test the RESTful API using a Postman test harness.

Additional information

Theme(s): Security, Mobile, Application platforms

Session type: Lightning talk

Session length: 45 minutes



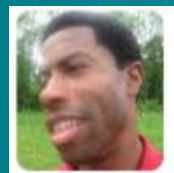
Session schedule

Thursday, May 4, 4:30 PM - 5:15 PM
-- Room 101

THANK YOU

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Chad Darby

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Hong Hua

GitHub  

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