



Private NPM for Company  
企業級私有NPM



@fengmk2 (蘇千)

Node.js @alipay 支付寶

# 两岸距离:最遥远的距离



1. 通行证.jpg



2. 通行证G签.jpg



3.1 身份证1.jpeg



3.2 身份证2.jpeg



4. 2寸照片.jpg



DOCX



5.1 户口本首页.jpg



5.2 户口本个人页.jpg



6. 信用卡.jpg



7.1 大陆紧急联系人身份证.jpg



7.2 大陆紧急联系人户口本1.jpg



7.3 大陆紧急联系人户口本2.jpg



入台證檢查概要-0903新版.pdf



入台证039910771.pdf



北京國旅I-1010-6Z(東興)-袁鋒.jpg

Start with #scalenpm

一切從 #scalenpm 說起



You are 數位

Thank you for your support!

Do you donate #scalenpm?  
現場有誰贊助了，請聚一下手？

<https://scalenpm.org>

You are 

Thank you for your support!

On November 26, 2013, Nodejitsu reached out to the npm community for help running the public npm servers. They delivered.

This page is about the  
\$200,000 to help with  
It happened because p  
it happen.

We raised

If you're a node develo  
back to community.

for node.js. We asked for  
\$300,000 for the project.  
and companies that made

In total the community raised

326,424.00

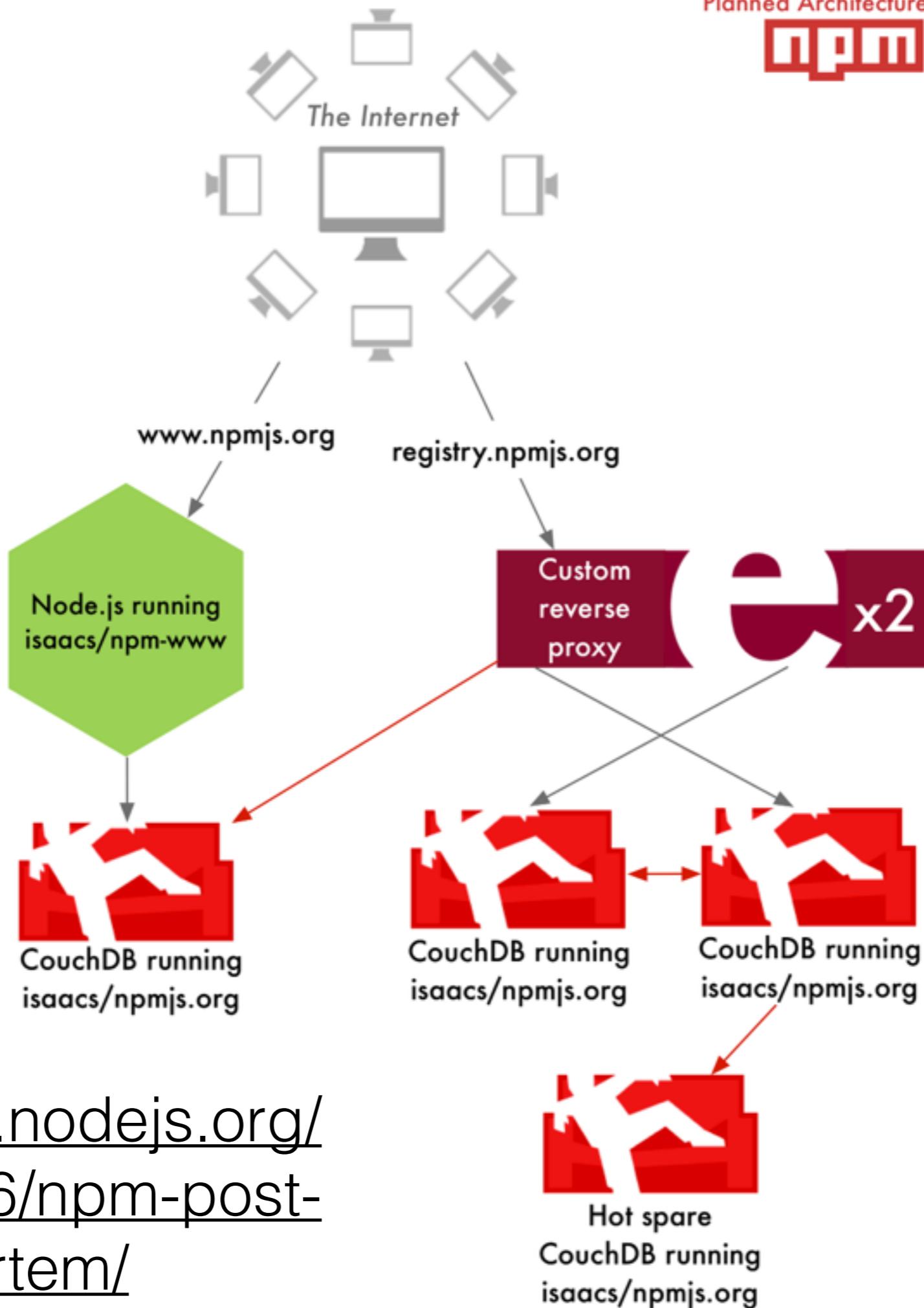
and the importance of giving

# WTF?!!!

In total the community raised

€326,424.00

Why cost so much \$\$\$



[http://blog.nodejs.org/  
2013/11/26/npm-post-  
mortem/](http://blog.nodejs.org/2013/11/26/npm-post-mortem/)

# What's problem? 有什麼問題呢？

- Not familiar with CouchDB
- 我們對CouchDB真心不熟悉
- The architecture of NPM is hard to maintain
- 這樣的NPM架構太複雜了
- Store the \*.tgz files to simple store services
- 我們想將所有\*.tgz文件放到云存儲中
- We don't have \$ 326,424
- 我們還沒有這麼多錢 %>\_<%

# Why CNPM

## 為什麼要做CNPM

- Easy Maintain / 容易維護
- Lower Cost / 很低成本
- Stable / 穩定可用, GFW in China
- Faster / 更快
- Simple / 簡單
- Open Source / 完全開源

Goodbye, CouchDB!  
後會無期, CouchDB!



package.json

\*.tgz

Powered by

MySQL®

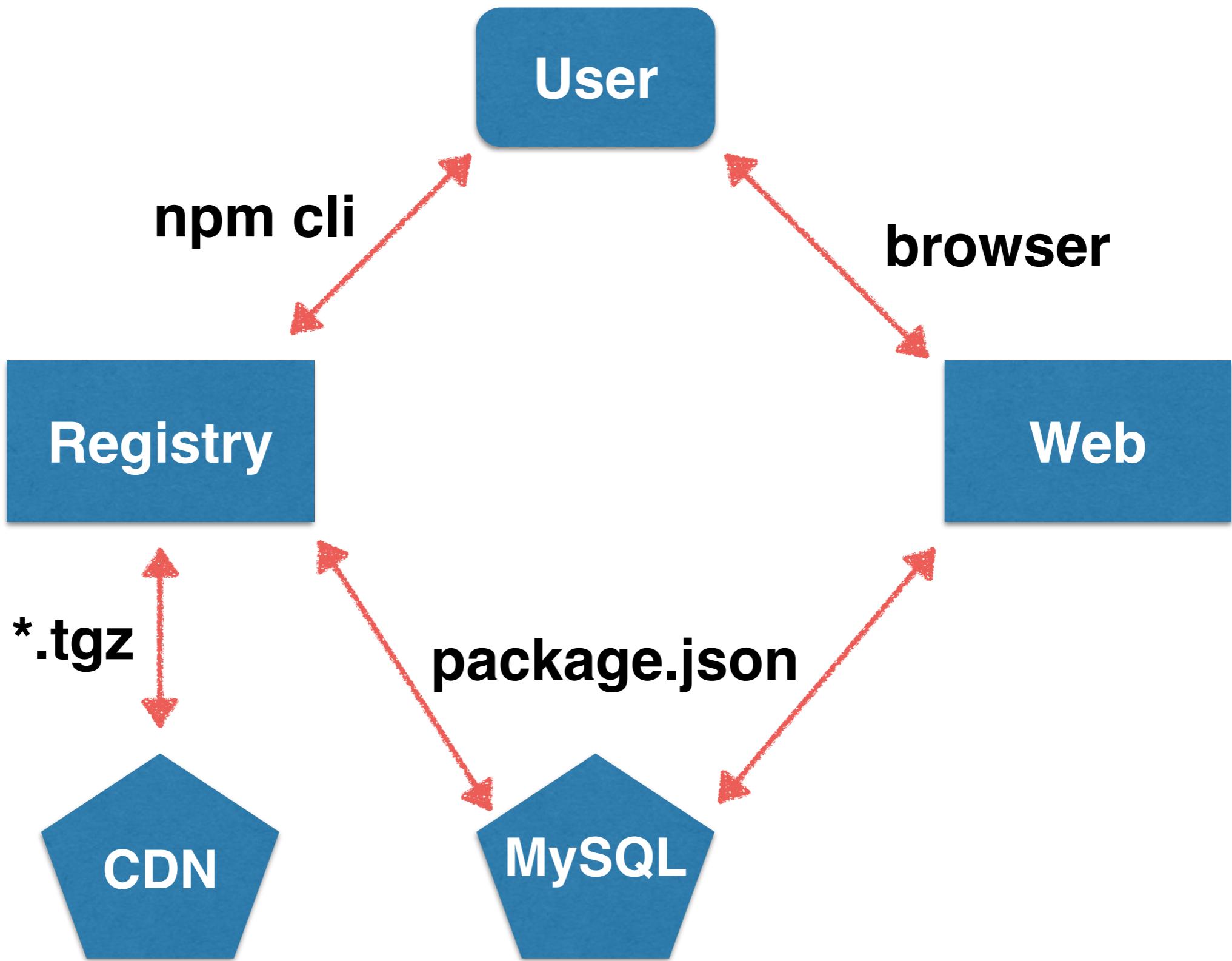


QINIU  
七牛云存储

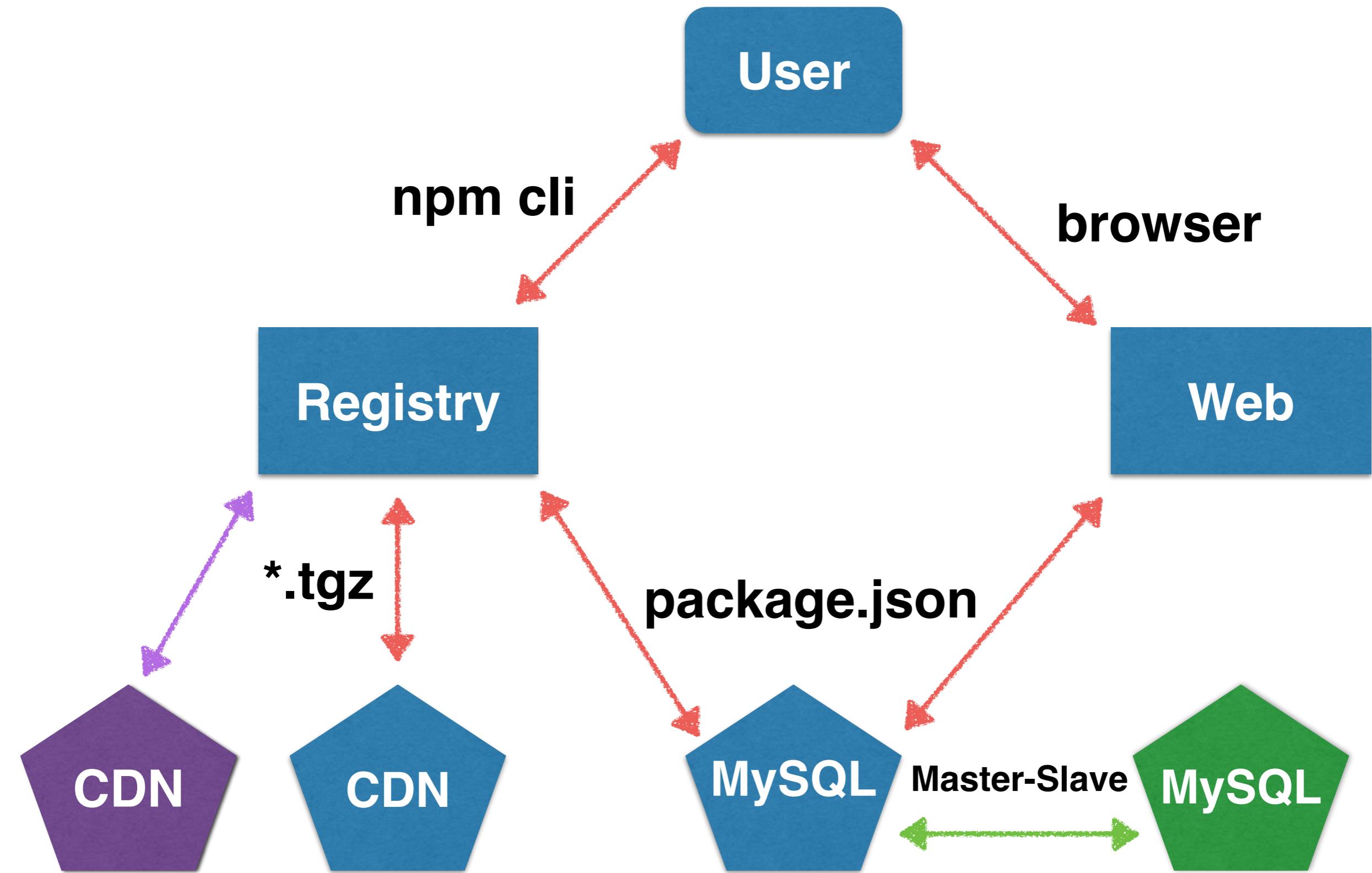
upyun

重新定义云加速

# CNPM Architecture / 架構



# Scalable / 擴展性





Search Packages

# cnpmjs.org: Private npm registry and web for Company

So `cnpm` is meaning: Company npm.

## Registry

- Our public registry: [r.cnpmjs.org](http://r.cnpmjs.org), syncing from [registry.npmjs.org](http://registry.npmjs.org)
- Current [cnpmjs.org](http://cnpmjs.org) version: 1.5.5
- Mirror of [Node.js Manual & Documentation](http://nodejs.org/manual)
- Mirror of [nodejs.org/dist](http://nodejs.org/dist): [/dist mirror](#)
- Mirror of [phantomjs](http://phantomjs.org) downloads: [phantomjs mirror](#)

<http://cnpmjs.org/>

101,719	total packages	546,507	total package versions	19	total delete packages
3,558	downloads today	42,051	downloads in this week	8,570	downloads in this month
5,012	downloads in the last day	124,872	downloads in the last week	488,240	downloads in the last month

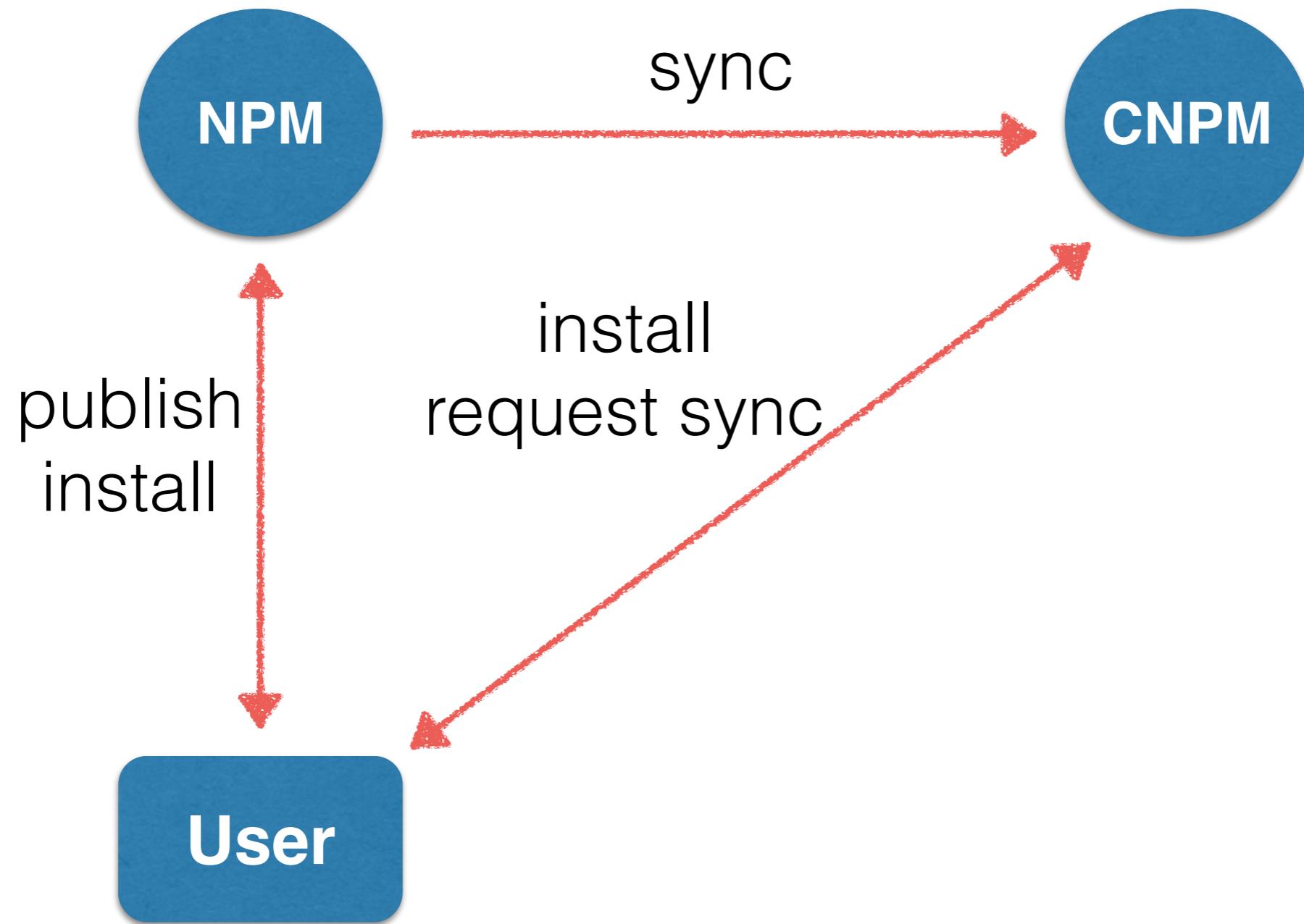
## Sync Status

This registry will sync all packages from official registry.

Last sync time is Fri Oct 03 2014 01:16:24 GMT+0800 (CST).

22 packages need to be sync		100% progress
22 packages and dependencies sync successed	0 packages and dependencies sync failed	last success: <a href="#">selenium-drivers</a>

# Sync / 同步



# 同步機制

- Sync once every 10 minutes
- 十分鐘同步一次
- Use `cnpm sync` command
- 手動使用 `cnpm sync` 命令同步
- cnpm install a not exist package, will trigger sync in the backend
- 通過 cnpm 安裝不存在的模組會自動觸發一次同步
- Sync in cnpm website
- 通過網站上的同步按鈕進行同步

# NPM China Mirror Statistics

## NPM中國鏡像統計

- Total in SEP / 9月份的數據統計
- [cnpmjs.org](http://cnpmjs.org) mirror: 488,240 downloads
- [cnpmjs.org](http://cnpmjs.org) 鏡像: 488,240 次下載
- taobao npm mirror: 1,721,255 downloads
- 淘寶 npm 鏡像: 1,721,255 次下載

# cnpmjs.org snapshot at 2014-10-04



Search Packages

## cnpmjs.org: Private npm registry and web for Company

So **cnpm** is meaning: **Company npm**.

### Registry

- Our public registry: [r.cnpmjs.org](https://r.cnpmjs.org), syncing from [registry.npmjs.org](https://registry.npmjs.org)
- Current [cnpmjs.org](https://cnpmjs.org) version: 1.5.5
- Mirror of [Node.js Manual & Documentation](https://nodejs.org/manual)
- Mirror of [nodejs.org/dist](https://nodejs.org/dist): /dist mirror
- Mirror of [phantomjs](https://phantomjs.org) downloads: phantomjs mirror

101,901	total packages	547,713	total package versions	19	total delete packages
4,317	downloads today	48,241	downloads in this week	14,760	downloads in this month
5,431	downloads in the last day	124,872	downloads in the last week	488,240	downloads in the last month

<https://npm.taobao.org> snapshot at 2014-10-04

The screenshot shows the Taonpm homepage. On the left is a large blue "TAONPM" logo. To its right is a search bar with the placeholder "Search Packages". Below the logo and search bar, the text "淘宝 NPM 镜像" is displayed. A list of bullet points provides information about the service, including its synchronization status with npmjs.org and details about Node.js versions and mirrors. At the bottom, there is a table with statistics: 101,680 modules, 545,143 module versions, 6 deletions, 5,457 daily downloads, 553,717 weekly downloads, 177,824 monthly downloads, 32,756 yesterday's downloads, 382,017 last week's downloads, and 1,721,255 last month's downloads.

Search Packages

## 淘宝 NPM 镜像

这是一个完整 [npmjs.org](https://npmjs.org) 镜像，你可以用此代替官方版本(只读)，同步频率目前为 **10分钟** 一次以保证尽量与官方服务同步。

- 当前 [registry.npm.taobao.org](https://registry.npm.taobao.org) 是从 [registry.npmjs.org](https://registry.npmjs.org) 进行全量同步的.
- 当前 [npm.taobao.org](https://npm.taobao.org) 运行版本是: `cnpmjs.org@1.5.4`
- 本系统运行在 [Node.js@v0.11.13](#) 上.
- [nodejs.org/dist](#) 镜像: <https://npm.taobao.org/dist>
- [phantomjs downloads](#) 镜像: [phantomjs mirror](#)
- [Node.js 文档](#) 镜像: [Node.js Document](#)

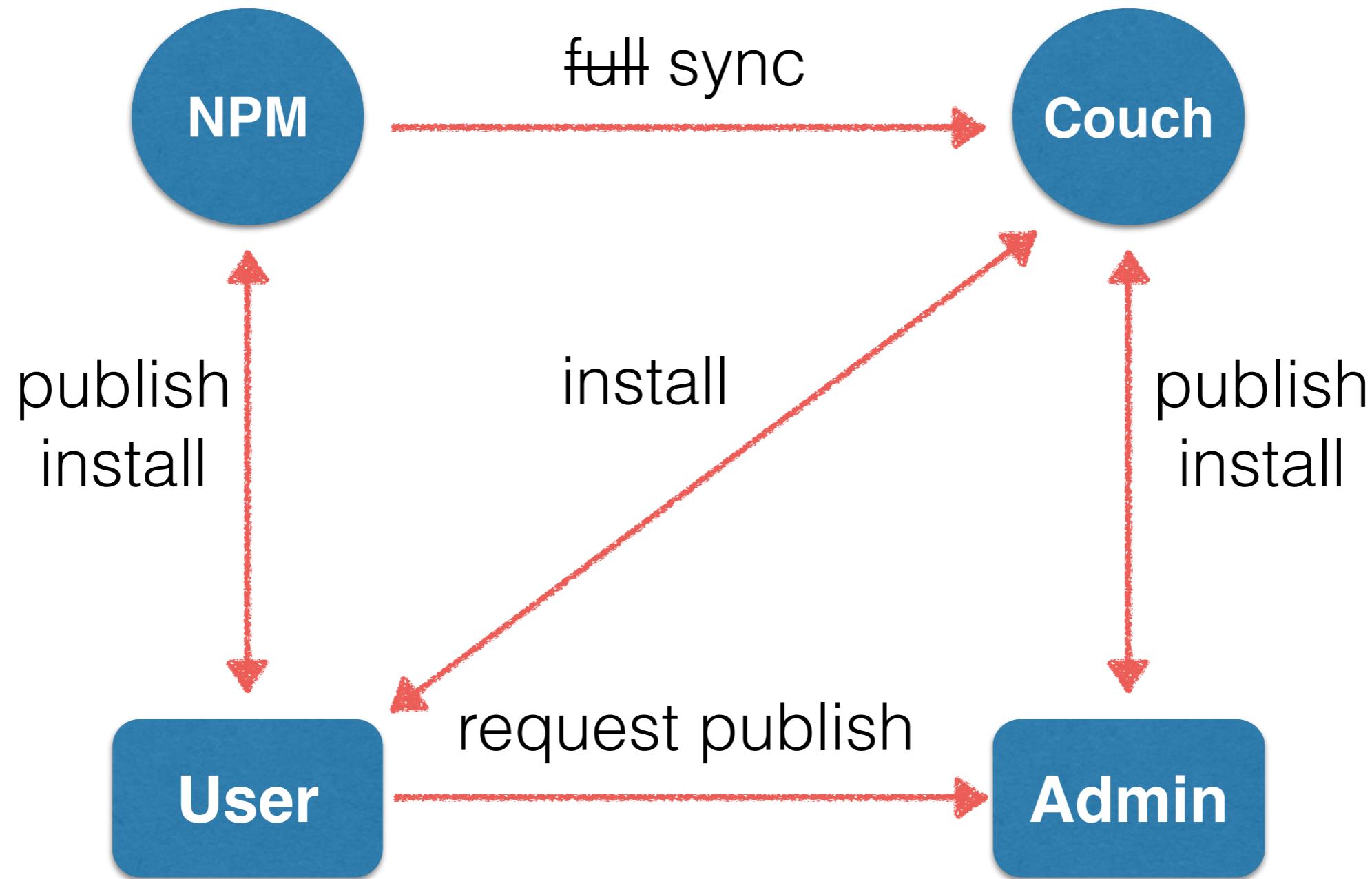
101,680	个模块	545,143	个模块版本	6	次删除
5,457	次本日下载	553,717	次本周下载	177,824	次本月下载
32,756	次昨日下载	382,017	次上周下载	1,721,255	次上月下载

# Why Private NPM? 為什麼我們需要私有NPM?

- Need fast and stable NPM service
- Publish private modules
- Control the modules in private NPM
- 需要更快更穩定的 NPM 服務
- 發佈私有模組
- 控制私有 NPM 中的所有模組

# Private NPM with CouchDB

## 基於CouchDB的企業私有 NPM

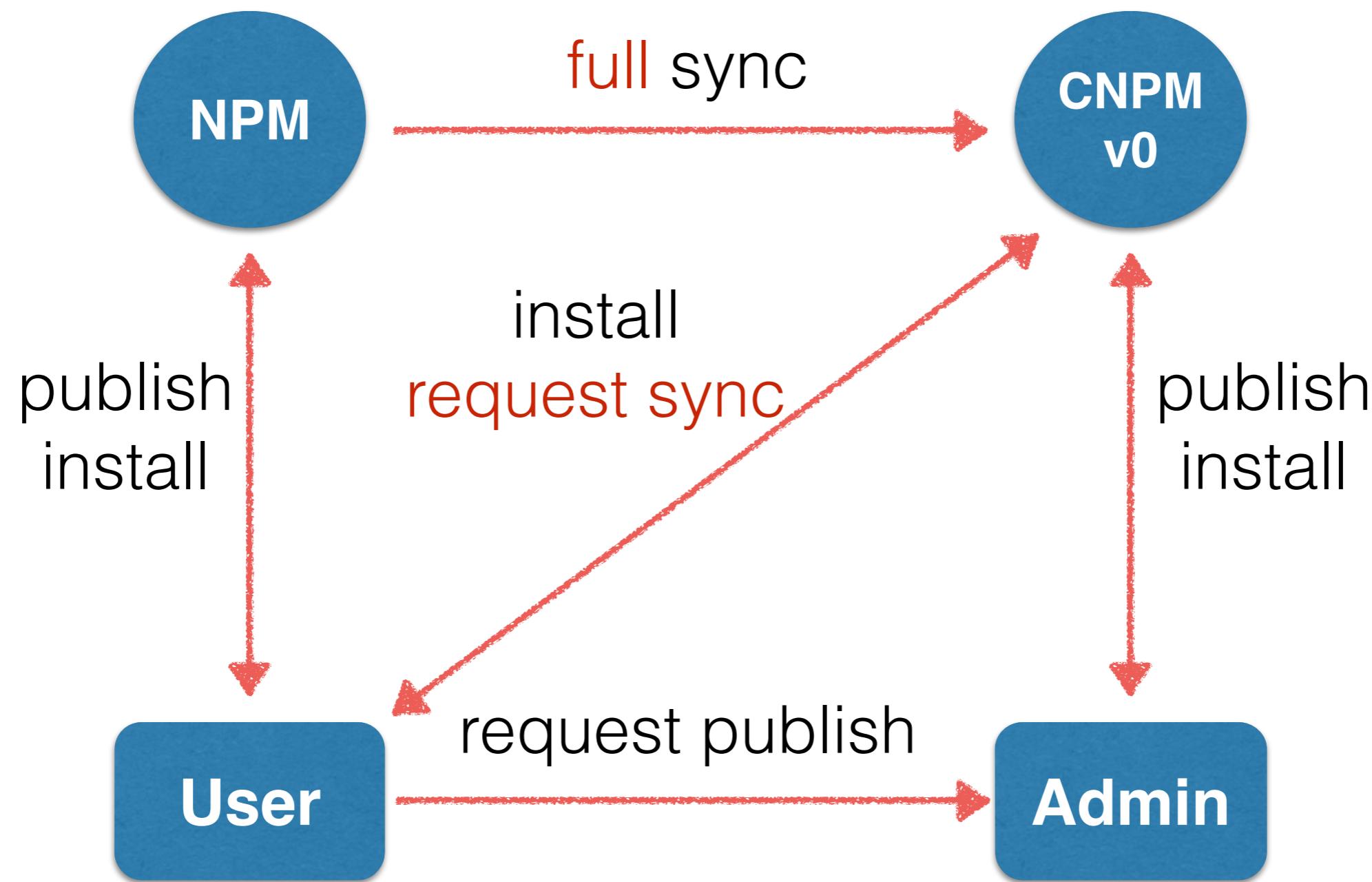


# What's the problem on CouchDB Solution

- Sync **Latency** too large, **full sync** is **impossible**
- publish control is **hard**, need **modified** CouchDB npm logic scripts
- CouchDB is a **black box**, we don't dare to **upgrade** it
- When CouchDB **crash**, only **restart** we can do
- NPM modules grow **too fast**, old version CouchDB can't **catch up**...
- **Missing search** and private package **view page**
- 同步延遲很嚴重, 基本沒可能做到全量同步
- 很難控制發佈權限, 需要修改CouchDB內置的npm邏輯腳本
- CouchDB是一個黑盒, 我們一直都不敢對它進行版本更新
- 當CouchDB掛了, 我們唯一可做的就是重啟
- NPM模組增速非常快, 舊版本的CouchDB隨時有崩潰的可能
- 缺少搜索和私有模組頁面

# Private NPM with CNPM

## 基於CNPM的企業私有 NPM



# CNPM Solution

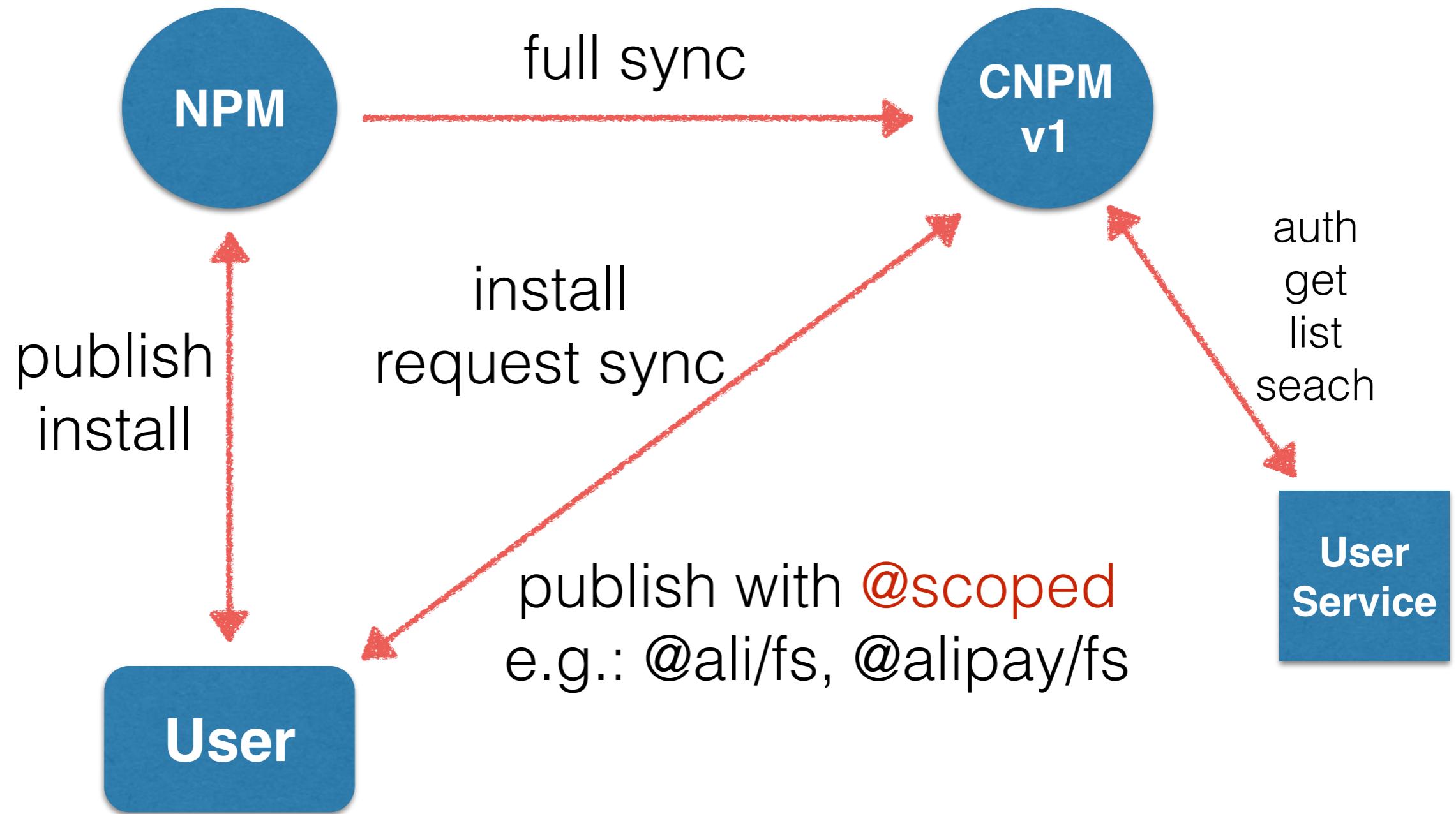
- Fixed all problems on CouchDB
- Max sync **Latency** is **10 mins** (you can config it)
- Support `\$ **cnpm sync** \$module` for realtime sync
- 可配置的最大同步延遲
- 通過同步命令實現實時同步

# But still has problems

## 還有問題

- **Duplicate name** between public and private module
- 共有模組和私有模組會**重名**
- Internal **User Authorization**
- 如何接入企業內部的用戶授權認證

# Scoped packages



# Private User Service

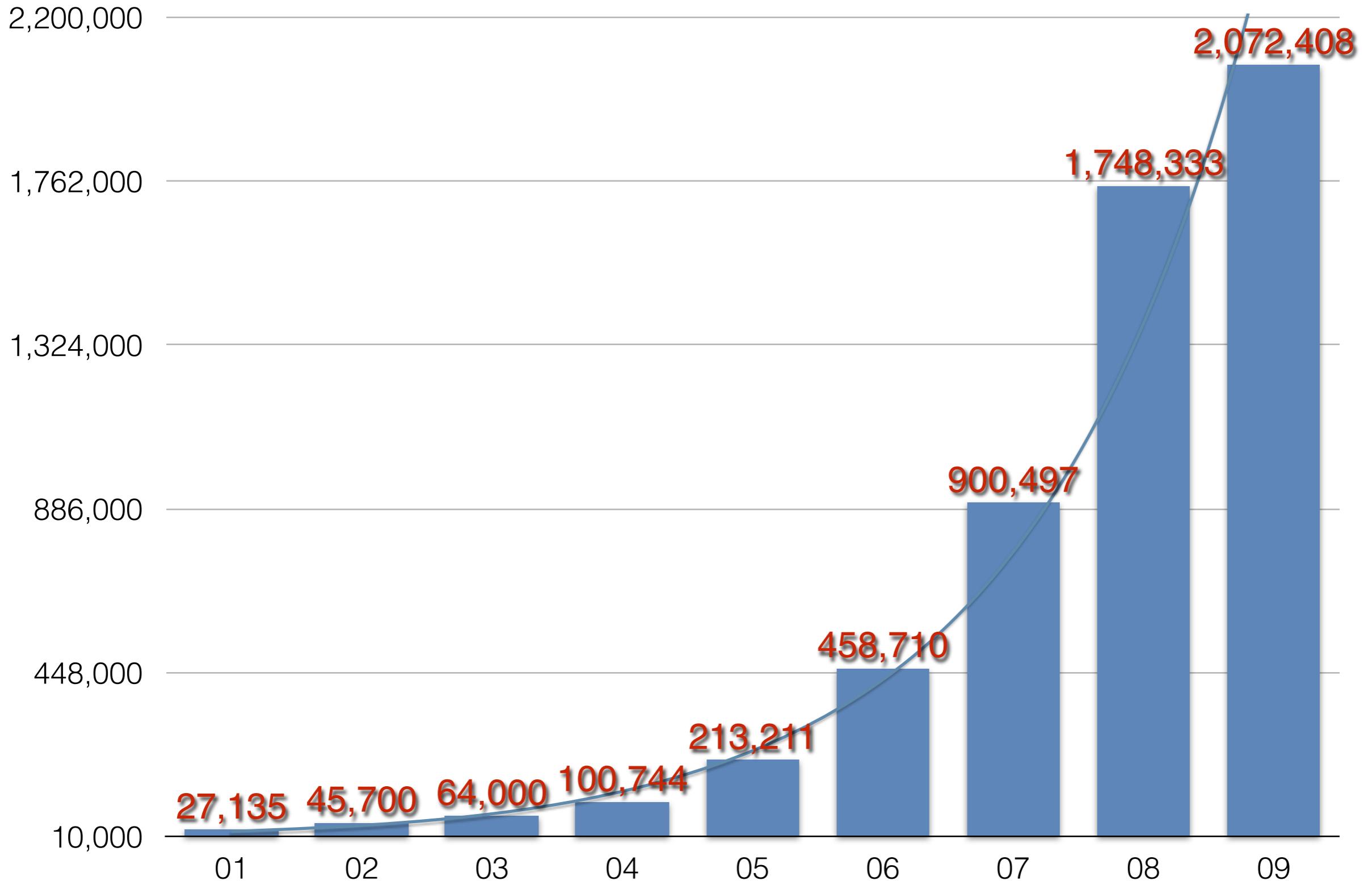
- Every company has it's own User Service
- 每個企業都會有自己的用戶系統
- CNPM support UserService API: <http://t.cn/Rhr8Zes>
  - auth(login, password)
  - get(login)
  - list(logins)
  - search(query, options)

# Alibaba NPM Statistics

## 阿里巴巴 NPM 統計

- Downloads: **2,072,408** / month, ~**500,000** / week
  - 2014-01: **27,135** ==> 2014-09: **2,072,408**
  - **Double** grow per month / 每月翻倍增長
- Private packages: 434

# Packages Downloads per month in 2014



# Paypal Private NPM

<http://t.cn/Rhmk6ZQ>

- **35** apps live (marketing, signup, account, payments, etc).
- **400** new JavaScript engineers
- **500,000** npm installs per day (internally)

private npm inside alibaba snapshot at 2014-10-04



Search Packages

## 阿里内部 NPM 及 源 NPM 镜像

这是一个完整 [npmjs.org](http://npmjs.org) 镜像，你可以用此代替官方版本(只读)，同步频率目前为 **10分钟**一次以保证尽量与官方服务同步。

- 当前 [registry.npm.taobao.org](http://registry.npm.taobao.org) 是从 [registry.npm.taobao.org](http://registry.npm.taobao.org) 进行全量同步的.
- 当前 ali npm 运行版本是: [cnpmjs.org@1.5.5](http://cnpmjs.org)
- 本系统运行在 [Node.js@v0.11.12](http://Node.js) 上.
- Node.js 文档镜像: [Node.js Document](http://Node.js Document)
- Node.js 安装包镜像: <http://web.npm.taobao.org/dist>
- Phantomjs 镜像: <http://web.npm.taobao.org/dist/phantomjs>
- 所有私有模块列表: [all private packages](#)

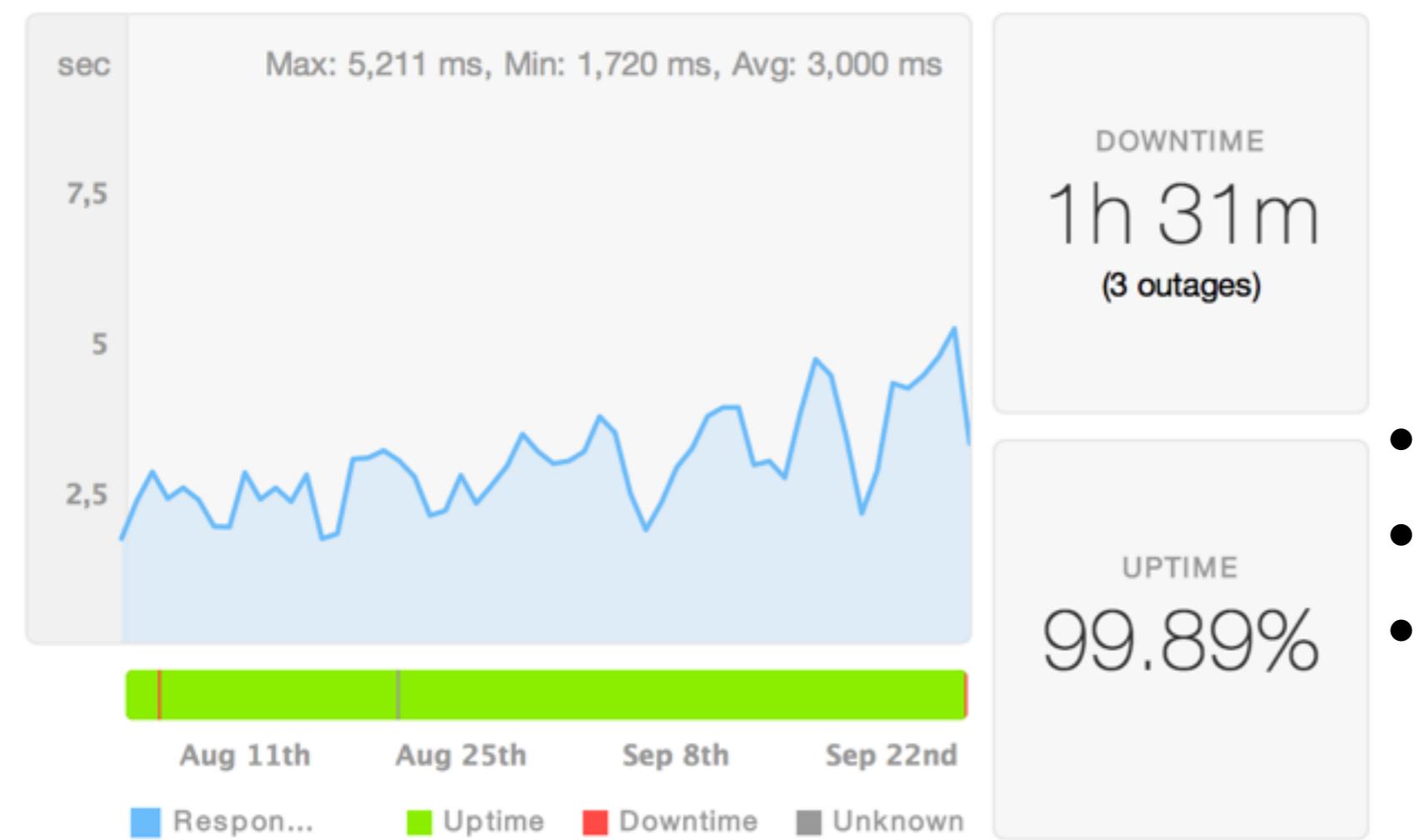
101,208	个模块	545,152	个模块版本	47	次删除
114	次本日下载	169,555	次本周下载	23,731	次本月下载
6,466	次昨日下载	489,332	次上周下载	2,072,408	次上月下载

# Lower Cost / 低成本

- cnpmjs.org for example, total cost per month: \$ 19.6
  - registry & web app droplet: \$ 5 (512MB Mem / 20GB SSD)
  - MySQL db droplet: \$ 5 (512MB Mem / 20GB SSD)
  - qiniu simple store: \$ 9.6, 190GB store total, 54GB download / month
- 
- 以 cnpmjs.org 為例, 每月總成本: 19.6 美元 ~= 589 新台幣
  - registry 和 web 應用服務器: 5 美元, digitalocean 最低配置
  - MySQL 數據庫服務器: 5 美元, digitalocean 最低配置
  - 七牛云存儲: 9.6 美元, 目前總容量 190GB, 每月下載 54GB

EDIT CHECK

APPLY FILTER



## Stable / 穩定

- Uptime Report
- 99.89% last month
- include maintain times

Uptime Changes	Response Time Log	Test Result Log
FILTER ▾		
FROM	▲ TO	...
2014-09-27 18:29:06	2014-09-27 19:58:06	...
2014-08-05 01:43:06	2014-08-05 01:44:06	...
2014-08-05 01:21:06	2014-08-05 01:22:06	190.93.243.1

# Simple deploy / 部署簡單

- Dependencies / 依賴
  - Node >= 0.11.12, use `—harmony`
  - MySQL >= 0.5.0, include `mysqld` and `mysql` cli
    - You can use any RDS instead / 可用任意 RDS 服務代替
  - Simple File Store Service / 任意文件云存储

# Easy to contribute

## 便捷參與開發

- \$ git clone <https://github.com/cnpm/cnpmjs.org.git>
- \$ make install
- \$ make test
- run app with development mode
- \$ make dev

# koa example

- connect to koa
- full koa application example
- why koa? 為什麼選擇koa?
- **who use, who enjoy / 誰用誰享受**

# connect to koa diff

```
17 var User = require('../proxy/user');
18 -var eventproxy = require('eventproxy');
19
20 -exports.display = function (req, res, next) {
21 -  var name = req.params.name;
22
23 -  var ep = eventproxy.create();
24 -  ep.fail(next);
25 -  Module.listByAuthor(name, ep.done('packages'));
26 -  User.get(name, ep.done('user'));
27
28 -  ep.all('packages', 'user', function (packages, user) {
29 -    //because of sync, maybe no this user in database,
30 -    //but his packages in this registry
31 -    if (!user && !packages.length) {
32 -      return next();
33 -    }
34 -    user = {
35 -      name: name,
36 -      email: user && user.email
37 -    };
38 -
39 -    return res.render('profile', {
40 -      title: 'User - ' + name,
41 -      packages: packages || [],
42 -      user: user
43 -    });
44  });

17 var User = require('../proxy/user');
18
19 +exports.display = function *(next) {
20 +  var name = this.params.name;
21
22 +  var r = yield [Module.listByAuthor(name), User.get(name)];
23 +  var packages = r[0];
24 +  var user = r[1];
25 +  if (!user && !packages.length) {
26 +    return yield next;
27 +  }
28 +  user = {
29 +    name: name,
30 +    email: user && user.email
31 +  };
32
33 +  yield this.render('profile', {
34 +    title: 'User - ' + name,
35 +    packages: packages || [],
36 +    user: user
37  });

37 );
```

# Who's using cnpm?

# 誰在使用 cnpm?

- Private npm
  - alibaba(阿里巴巴)
  - meituan(美团)
  - ctrip(携程)
  - mogujie(蘑菇街)
- npm mirror
  - China npm mirror: [cnpmjs.org](http://cnpmjs.org)
  - Taobao npm mirror: [npm.taobao.org](http://npm.taobao.org)
  - Education Network npm mirror: [enpmjs.org](http://enpmjs.org), support IPv6

```
talk.emit('end, thank you');
```

```
console.log('QA');
```