Node.js on PowerPC
A story about porting Node.js & V8
Introduction

- Node.js
- V8 on PowerPC
- Demo
Java != JavaScript
Java → JavaScript

PayPal™

Netflix

Walmart

ebay™
## Node.js

What's Node made of?

<table>
<thead>
<tr>
<th>V8 Engine</th>
<th>libuv</th>
<th>core lib</th>
</tr>
</thead>
<tbody>
<tr>
<td>C++</td>
<td>C</td>
<td>JavaScript</td>
</tr>
<tr>
<td>JS</td>
<td>platform abstraction layer</td>
<td></td>
</tr>
</tbody>
</table>

Node.js was created by Ryan Dahl
Joyent is the steward of Node.js
http://npmjs.org
• Example:

```
$ npm install orion
$ npm start orion
```
Awesomesauce!
PowerPC - who cares?
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PowerPC - who cares?
Was it hard to port?

- **Node.js** - No, not really.
- **V8** - Yes. Very.

Why? V8 always compiles JS to machine code.
50,510
Eat the whale?
Demo endian
/*
 * Replicate classic C endian check
 *
 * int main()
 * {
 *   int x = 1;
 *   
 *   char *y = (char*)&x;
 *   
 *   printf("%c\n",*y+48);
 * }
 */

var a1 = new Uint32Array([1]);
var a2 = new Uint8Array(a1.buffer);

cansole.log(a2[0]);
Community

- GitHub andrewlow/v8ppc
- GitHub andrewlow/node
- Jenkins v8ppc.osuosl.org:8080
- Ubuntu Trusty
Using V8

Aside from Node.js, V8 itself has become an important result.

- MongoDB
- therubyrazer (Ruby gem)
- libv8 (Ubuntu)
What's next?

- Node.js 0.12.x
- Port to zSeries (S390) platform running zLinux
  - GitHub andrewlow/v8z
- Contribution back to master V8 and Node.js repositories

Standard Disclaimer: This is not a product announcement, nor a commitment.
Questions?

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