

WHAT'S NEXT



Michael Dawson
@mhdawson1

Tierney Cyren
@bitandbang





About Michael Dawson
IBM Community Lead for
Node.js

Twitter: @mhdawson1

GitHub: @mhdawson

LinkedIn: linkedin.com/in/michael-dawson-6051282

Active Node.js Community Member

- Node.js Project Collaborator
- Node.js Technical Steering Committee (TSC) Chairperson
- Working Group Member and Leadership



About Tierney Cyren
[NodeSource](#) Developer
Advocate

Twitter: @bitandbang
GitHub: @bnb
LinkedIn:
linkedin.com/in/bitandbang

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Node.js Community Contributor

- Chairperson of the Node.js Community Committee
- Working Group and Initiative Contributor
- Node.js Developer, Community, and Ecosystem Advocate

Overview

- Learn how to fish (“Why do I need to fish?”)
- High level predictions
- Working Groups/Teams
- Strategic Initiatives
- Foundation Initiatives



Go Fishing – How to Track What's Next

Releases

nodejs.org github.com/nodejs/node/releases

Twitter

twitter.com/gibfahn/lists/node-js-news

GitHub Firehose

github.com/nodejs

Working Groups and Teams

nsrc.io/nodejs-working-groups

Strategic Initiatives

nsrc.io/tsc-initiatives

nsrc.io/commcomm-initiatives



High Level Predictions – Tierney

- Convergence of multiple distinct communities - front-end, DevOps, tooling
- Engaging more with individuals of differing educations and backgrounds
- Active engagement and discourse with third-party communities
- Increasing global open-source velocity with internationalization efforts
- Finding paths to engage with typically unrepresented ecosystems
- Node.js website becoming more of a universal resource



High Level Predictions – Michael

- Virtuous cycle from user feedback efforts
- N-API (complete in 10.x) and HTTP/2 out of experimental
- Completion of Error Messages Migration
- Emphasis on Diagnostics
- Progress on security triage for 3rd party modules
- Progress on ES6 Modules
- Promisification of Core (experimental fs and dns so far)
- Workers experimentation/validation



Strategic Initiatives – Error Messages

Context

- Add error code – error.code
- toString()
 - Error[error-code]: message
- Enables updating error messages without semver major changes

What's Next?

- Completion of messages in C++

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medium.com/the-node-js-collection/node-js-errors-changes-you-need-to-know-about-dc8c82417f65



```
1 | try {
2 |   // make a Node.js API call here
3 | } catch (error) {
4 |   if (error.message === 'This is the message') {
5 |     // do something
6 |   } else {
7 |     // do something else
8 |   }
9 | }
```

```
1 | try {
2 |   // make a Node.js API call here
3 | } catch (error) {
4 |   if (error.code === 'ERR_INVALID_URL_SCHEME') {
5 |     // do something
6 |   } else {
7 |     // do something else
8 |   }
9 | }
```

Many Thanks to:
@joyeecheung
@jasnell

@bitandbang



Strategic Initiatives – Internationalization (i18n)

Key Goals:

- Rebooting engagement with one of the most engaged groups of contributors: non-US individuals
- Using CrowdIn as a platform
- Translations, once approved, are merged into the official documentation
- Lowers the barrier to entry for individuals on a global scale

What's next?

- Shipping translated documentation with Node.js
- Translating the textual content of error codes

Many Thanks to i18n members:

@zeke
@laosb
@Volem
@vanessayuenn
@TiagoDanin
@srl295
@sotayamashita
@RichardLitt
@rajzshkr
@rachelnicole
@lukaszewczak
@LaurentGoderre
@JCMais
@FranzDeCopenhague
@maddhruv
@Tiriel
@obensource
@amorist
@Toinane
@iAndrewCA
@amiller-gh

@bitandbang



Working Groups – Security

Key Goals

- Define and Document security policies
- Help implement those policies

Progress last year (and this year)

- Documented initial processes
- Became CVE issuing authority (CNA) for Node.js core
- Defined initial processes for 3rd party vulnerability management
- Bug Bounty Program

What's Next?

- Continue to grow team triaging 3rd party vulnerabilities
- Evangelism and thanking Hackers and other supporters
- Become CVE issuer for 3rd party modules?
- Exploring Security policies in Node.js core

Many Thanks to active Security WG members:

[@bengl](#)
[@brycebaril](#)
[@ChALkeR](#)
[@cjihrig](#)
[@dgonzalez](#)
[@deian](#)
[@drifkin](#)
[@evilpacket](#)
[@grnd](#)
[@lirantal](#)
[@MarcinHoppe](#)
[@mdawson](#)
[@mgalexander](#)
[@ofrobots](#)
[@SomeoneWeird](#)
[@vdeturckheim](#)



Working Groups – Diagnostics

Key Goals

- First class...
 - Tracing
 - Profiling
 - Heap and memory analysis
 - Step debugging
 - Post mortem analysis

What's Next?

- Hardening of Async Hooks
 - Formalization of Async Terminology
 - Initial tools for visualization(ex Bubbleprof)
- Post mortem with promises
- Tiers for tooling
- Node Report integration
- Leveraging new trace engine

mike-kaufman commented on Nov 15, 2017 • edited by mhdawson

Member +

Diagnostics WG Summit

- Feb 12-13, 2018
- Ottawa, ON Canada
- Location Details & Accommodations: [2016 Ottawa_visitor_guide.pdf](#)

Many Thanks to active Diagnostics WG members:

@AndreasMadsen	@mcollina
@cjihrig	@mhdawson
@danielkhan	@mike-kaufman
@Flarna	@mmarchini
@hashseed	@ofrobots
@hekike	@Qard
@Hollerberg	@trevnorris
@jasnell	@watson
@jkrems	@yunong
@joyeecheung	
@kjin	



Strategic Initiatives – Website Redesign

Key Goals:

- Full redesign
 - Information Architecture, Design, and Implementation

Many Thanks to Website
Redesign Initiative leaders:

[@amiller-gh](#)
[@chowdhurian](#)

What's Next?

- Planning for documentation:
 - Improvements to existing Documentation
 - Adding Guides and Resources
- Community section that is still being built out
- Callouts to contributors, members, and more



Working Groups – Release

Key Goals

- Predictable and regular releases
- Stable and reliable releases

What's Next?

- Additional individuals working on releases
- Increase/improve safety net

Many thanks to the Release WG members:

@Fishrock123
@MylesBorins
@gibfahn
@mhawson
@sam-github
@cjihrig
@evanlucas
@italoacasas
@jasnell
@rvagg
@targos
@al-k21
@bengl
@bzoz
@gdams
@richardlau



Working Groups – Build & Automation

Key Goals

- Support infrastructure to deliver Node.js

What's Next?

- More automation tools/scripts
 - Commit Queue
 - Improved Ansible coverage
 - Tracking intermittent failures in CI
- Changes to supported operating system levels
 - Incremental platform test coverage
 - Dropping coverage for older operating systems
 - Addition of newer operating systems
- Requirement for higher GCC levels

Many Thanks to build WG members:

[@gdams](#)
[@gibfahn](#)
[@jbergstroem](#)
[@joaocgreis](#)
[@joyeecheung](#)
[@lucalanziani](#)
[@maclover7](#)
[@mhdawson](#)
[@mmarchini](#)
[@MylesBorins](#)
[@phillipj](#)
[@refack](#)
[@rvagg](#)
[@Starefossen](#)
[@Trott](#)



Working Groups – Benchmarking

Key Goals

- Avoid Regressions
- Track and Evangelize gains between releases

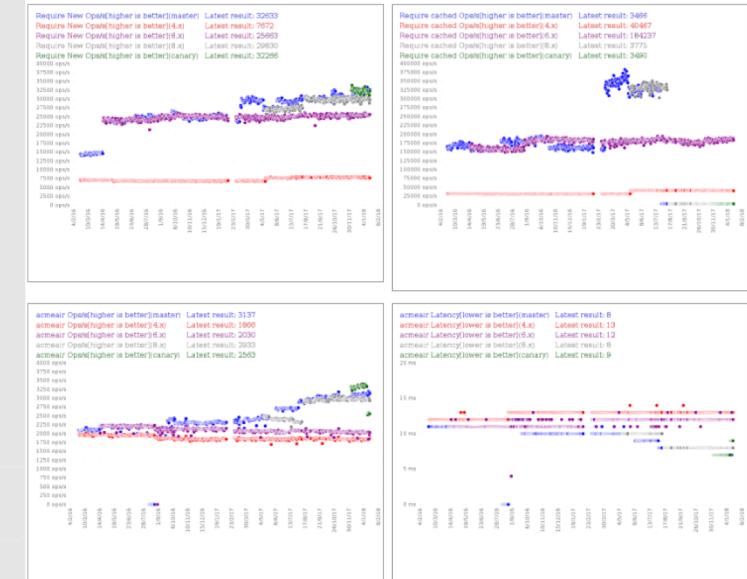
How?

- Define Use Cases
- Identify/Build Benchmarks
- Run/Capture results

What's Next?

- New workloads, promises, and more?

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benchmarking.nodejs.org

Many Thanks to active Benchmarking WG members:
@bmeurer
@gareth-ellis
@mhawson
@ofrobots
@uttampawar

@mhawson1



Strategic Initiatives – Community Building

Mentorship Initiative

- Several hundred mentees signed up
- Call for mentors is still up and running
- Centralized on NodeSlackers as a platform

Node Together

- Kicking off again shortly
- Focusing on engaging at community colleges

Many Thanks to the Mentorship Initiative members:

@bamieh
@dshaw
@hollomancer
@codeekage
@detrohutt
@jxm262

Many Thanks to the NodeTogether contributors:

@ohhoe
@patriciarealini
@ashleygwilliams

@bitandbang



Strategic Initiatives – Modules

Context

- Node.js has pre-existing module system
- ES6 Standardized new module system

Key Goals

- Browser compatible ES6 implementation
- Co-existence with existing module system

What's Next?

- Documenting Use Cases and Features
- Refine experimental version in Node.js master

Many Thanks to modules team:

@benjamingr

@benjamn

@bmeck

@ceejbot

@chrisdickinson

@DanielRosenwasser

@devsnek

@Fishrock123

@GeoffreyBooth

@giltayar

@guybedford

@iarna

@inidaname

@jdalton

@jkrems

[@linclark](#)

[@ljharb](#)

[@manekinekko](#)

[@mcollina](#)

[@mduleone](#)

[@mhawson](#)

[@MylesBorins](#)

[@robpalme](#)

[@targos](#)

[@tbjers](#)

[@weswigham](#)

[@XadillaX](#)



Strategic Initiatives – HTTP/2

Context

- Major revision of HTTP
- Experimental status, but no flag
- 2 new APIs
 - Core API
 - Compatibility API
- Uses `nghttp2`

What's Next?

- Expect to exit experimental in 2018

Many Thanks to:

@jasnell

@addaleax

@apapirovski



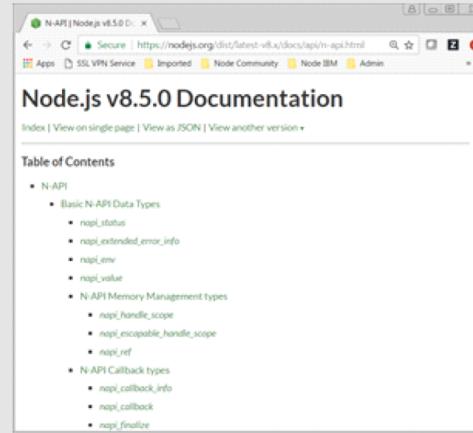
Strategic Initiatives – N-API

Goals

- ABI Stable API for Native modules
- Enable Innovation through multi-vm support

What's Next?

- Improved docs/test for node-addon-api
- Go stable in 8.X (already stable in 10.x, already in 6.x, 8.x and 10.x)
- Driving adoption



Many Thanks to N-API team:

[@aruneshchandra](#)

[@jasongin](#)

[@boingoing](#)

[@jschlight](#)

[@corymickelson](#)

[@mhdawson](#)

[@digitalinfinity](#)

[@NickNaso](#)

[@gabrielschulhof](#)

[@sampsongao](#)

[@ianwjhalliday](#)

[@anisha-rohra](#)



Strategic Initiatives – Core Promise APIs

Context

- Native promise support added to V8
- Initial promise support In Node.js
 - util.promisify
 - util.callbackify

What's Next?

- Initial experimentation with new APIs
 - fs
 - dns

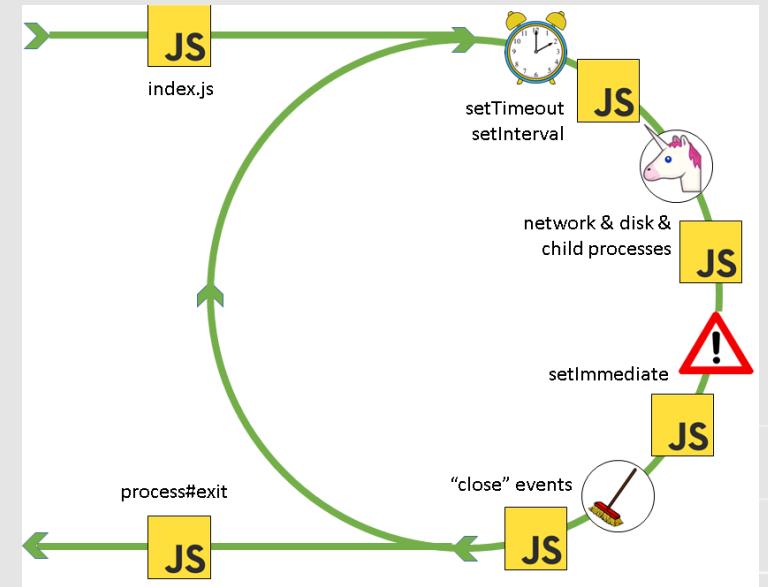
Many Thanks to:
@addaleax
@jasnell



Strategic Initiatives – Workers

Context

- Computation blocks all requests
- Some Current Solutions
 - Multiple Instances Node.js
 - Offloading
 - Native add-ons
- Goal is to make it easier/more efficient



What's Next?

- Refine experimental implementation in master

Many Thanks to:
@addaleax



Strategic Initiatives – User Feedback

Context

- Resource for WGs to get feedback
- Building out surveys for WGs
- Sharing anonymized data publicly
- Regular meeting with end users:
 - General
 - Tooling
 - Enterprise users

What's next?

- Exploring new ways to engage with end-users

Many Thanks to User Feedback
Initiative members:

@dshaw
@mhdawson
@mihaiep
@mikehostetler
@williamkapke
@bnb
@hackygolucky



Foundation Initiatives

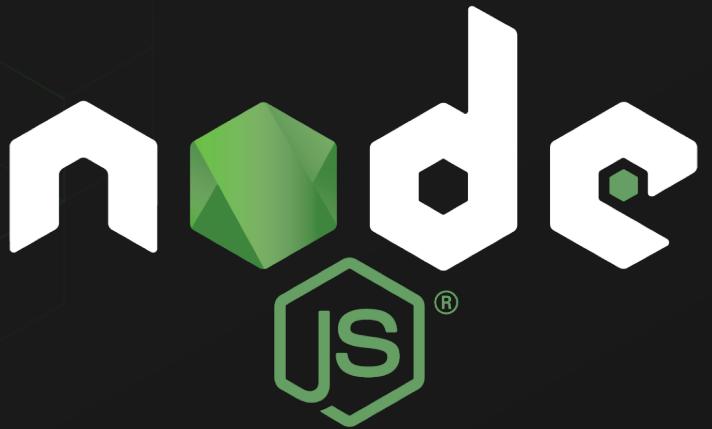
- Industry Neutral Node.js Certification
- Node.js Collection - Medium Publication
- Growing interaction in the JS Ecosystem
- Node.js Case Studies
- More Coming Soon!

Many Thanks to the Foundation team:
Zibby Keaton
Greg Wallace
Sarah Conway

Many Thanks to Individuals who have tirelessly worked on the Certification:
David Mark Clements
Tracy Hinds
Charlie Robbins
Luca Maraschi
Tierney Cyren
Nathan White

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