



Request for Google V8 Developer Advocate

20240730 z/OS Open Tools



Google Chromium v8 port to z/OS UNIX

- z/OS Open Tools has an existing port of Google Chromium V8 Javascript Engine and has been upstreamed
- This endeavor requires additional components such as depot_tools, gn, ninja, etc.
- This ecosystem exists as ports for z/OS UNIX in z/OS Open Tools
- This is a proposal to Google to provide a developer advocate to help with maturity of this ecosystem

ASIDE: see last slide for some mainframe terms



Why Google Should Provide a Developer Advocate

Increase Market Share / Mainframe Modernization

This project can drive increased Google Compute Engine usage by supporting IBM z/OS (mainframe) workloads running on Google platforms:

- Broadcom's IBM z/OS emulators run on Google Compute Engine platforms
- Perhaps Google has other customers besides Broadcom who run emulators with a similar configuration. Eg. GCP hosted emulators
- AWS and Microsoft do not support z/OS emulation
 - Last year GCP had a 23% increase in market share vs 25% AWS and 14% Azure
 - This engagement is another opportunity for GCP to increase its enterprise presence and consequently its market share

This is a multi-win situation

Google, z/OS Open Tools, IBM, Broadcom



The Asks

Originally the ask was to assist with upstreaming the port into the Chromium code base. Thanks to IBM this has been successfully completed. However, in the spirit of collaboration and partnership for the community and our customers, some asks persist:

- Assistance with making the port more robust
- Assistance with promoting the port from experimental to supported



Components and Upstream Status

- Gn
 - z/OS port is upstreamed and functional
- Ninja
 - z/OS Open Tools port exists and functional
 - Upstream not currently planned
 - Should we not address this?
- Depot_tools
 - z/OS Open Tools port is upstreamed.
 - Testing of the Change List (CL) in plan
 - [Current patch in in progress](#)
- V8
 - [Current patch merged](#)
 - z/OS Open Tools port exists and functional
- luci-go/auth
 - Binary is functional - resides in z/OS Open Tools
 - Waiting on IBM golang team to release source code



V8 z/OS UNIX port and Supported Platform Status

Ideally z/OS Open Tools would like to have this port as a first class package. Currently there are some linux on Z and AIX ports in place, but listed as “best effort/experimental”.

IBM has a process for open source component testing on z/OS UNIX. IBM will provide emulator access for testing to ensure a “Supported” port.

Although it is not currently available, the sign up form is [here](#)

If IBM can not provide access, Broadcom can provide this necessary interface to Google.



So what is z/OS UNIX?

The IBM mainframe is a server which runs on IBM Z series hardware with the latest being the IBM z16. The server is capable of running multiple operating system concurrently, including z/OS, z/VM, and Linux. The z/OS operating system includes an integrated UNIX environment known as z/OS UNIX. It supports familiar linux tools, some of which are provided by the z/OS Open Tools project. z/OS UNIX interfaces with traditional z/OS capabilities.



Mainframe Terms

z/OS - the Operating System

IBM Z - the hardware

z/OS UNIX - POSIX environment with integration for the traditional z/OS capabilities



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