Name: mcp-392-cswg-workshop-recap-and-planning

Title: recap and planning

**Status**: Draft -- anyone can edit.

See the <u>MCP index</u> to create or find documents, or <u>mcp-0-readme</u> for an overview. The headers above are machine-readable; please preserve format.

## Text checkins (10 mins)

#### Steve

- o Donaldo and I attended a really good MIT decentralized AI webinar last week
- working on finally finishing my private pilot license
  - flight physical pending, picking up the pace studying, buncha paperwork for flight school but if all goes well will be in the air in the next week or two
  - likely flying >3 days/week assuming flight school can accommodate that pace, if so I expect to be done in ~3 months (sooner if more days/week etc.)
  - will be playing a balancing act between getting the license ASAP vs CSWG/PromiseGrid vs cdint, may need to move CSWG schedule around depending on aircraft availability
  - am debating whether to go into crunch mode to get running POC code for grid-cli this week before things get busy with the flight school

## JJ

- First nice hike in a LONG time at Cougar Mountain, my favorite place for quick hikes
- Started the u-lab: Leading From the Emerging Future class
- o Parent's weekend this weekend
- Hopefully changing kid's name on Friday
- Likely visiting ABQ and Quelab soon
- Cool class: <a href="https://www.coursera.org/specializations/embedding-sensors-motors">https://www.coursera.org/specializations/embedding-sensors-motors</a>.
  This is part of the MS in EE at Colorado University
- <a href="https://landsat.gsfc.nasa.gov/apps/YourNameInLandsat-main/">https://landsat.gsfc.nasa.gov/apps/YourNameInLandsat-main/</a> Create your name in LandSat imagery:



### Rebecca

- Just attended an info session (for another "Lunch and Learn" from Particle (microcontroller manufacture with a "as a service" sort of outlook) about some of their upcoming IoT products and some of their cloud based tools for interacting with their edge devices
- Quelab is moving out of its current space by the end of the month. I will probably need to devote some extra time to this but we are also hiring movers
- Tried helping with painting trim over the weekend and all that reaching and bending has me feeling like it's time to join a gym and start working out regularly
- o Stormy migraine weather here recently but it has been good to get some rain
- I'm considering if I should get my dad's old truck, the sort of compact pickup that's not so available these days. I'd have to drive it maybe 3 days back to where I live

- Donaldo
  - Continuing Tool Trainings & Courses
    - Practical Electronics video lectures geared toward mechanical engineers https://www.youtube.com/playlist?list=PLNx89373hpKVb3tMPfRMUjmYN kkXohRv9
      - JJ; here is a great class that is accompanied by a kit <a href="https://www.coursera.org/specializations/embedding-sensors-moto">https://www.coursera.org/specializations/embedding-sensors-moto</a>
         rs
    - Structure more time in my week for more maker projects & art
  - "Climate Entrepreneurship Bootcamp" this weekend, 3-day workshop & group project / pitch competition
    - Led by MIT faculty from Climate & Energy Ventures Course; Bill Aulet author of 'Disciplined Entrepreneurship'
  - Redesigning Robotics Club Website
    - Want people to contribute; Many interested in making a React site and I'd rather not do that myself
    - Adapt some of the README files on collaboration we've developed in CSWG/main

## recap and planning (70 mins)

- We may move CSWG schedule around depending on Steve's aircraft training availability
  TBD. stav tuned
- Some discussion of ChatGPT o1
- roadmap as of today:
  - Trademark
    - This is a soft-first step; Steve already have .com, .net, .org, .io which acts as a sort of backstop to trademark conflicts
  - o grid-cli as running code
    - what is the layer architecture?
    - what is the API between each layer, e.g.:
      - how does a WASM module talk to the grid?
      - how does a WASM module receive a query from the grid?
      - how does a non-grid application interact with the grid?
      - this is where Steve is spending all of his time right now
      - he's been using GPT-4o and o1
  - o language models as fake participants in text mode using grid-cli text interface
    - play games?
    - write and test code?
  - VDI as POC app on grid-cli
    - Steve is feeling pressure to get POC by 01 Oct
    - launching VDI desktops is easy-ish given existing images e.g. webtop

- maintaining, evolving existing desktops in-place is hard because devops issues come into play
- e.g. we can have desktops quickly, but then either:
  - Steve has to sysadmin each upgrade and config change manually for each desktop
    - o e.g. JJ wants a newer version of neovim, Steve has to do it
  - We develop a grid-based devops tool that does the heavy lifting that something like cfengine, isconf, puppet, chef, or system initiative would be doing in a more conventional infrastructure.
    - e.g. JJ wants a newer version of neovim, gets the tool to do it
    - the cool thing is, if we wanted to keep a group of desktops in sync, then a consensus process can include Donaldo, Rebecca, Angela, and Steve in if and when we upgrade neovim to what version so we all stay in sync
      - this sort of tool does not exist in devops today, at least not as far as any dominant use (Steve knows of none at all, though it may be out there)
    - another cool thing is, we could do for VDI what NIX is doing for VMs and hosts
      - e.g. make multiple versions of things available the same way goenv works for Go
      - we might wind up using NIX, or might wind up superceding it -- Steve suspects NIX architecture would have been different if it had a grid to run on (e.g. nix store would be on the grid)
        - depends on whether NIX folks want to accept the modifications it would take to use grid storage as a NIX store
        - we may have a possible in for convincing NIX folks if changes are needed
    - implied cool thing: version changes of a binary or data file are explicit because the hash changed -- other parties can't change something you're using without your active participation
- researchgate paper, ping Mark
- On-boarding procedures, training modules via VDI
  - deployed as above using NIX-like tooling
- o public release
  - supported by and hosted on the above infrastructure
  - e.g. give someone a link to a virtual desktop
    - on the desktop are icons or menu items for onboarding, docs, FAQ, code, github repos, etc.

• use this as a landing page

# Plan next workshop (10 mins)

- Review MIT webinar, related papers, implications for CSWG/PromiseGrid
  - Next event 11 Oct <a href="https://lu.ma/y7wmn3qd?tk=dZB6op">https://lu.ma/y7wmn3qd?tk=dZB6op</a>
  - Notes and Videos from Roundtable 1 July 29th
    - https://www.media.mit.edu/publications/decentralized-ai-round-table-1-july -29-2024/
    - What's App: <a href="https://chat.whatsapp.com/D44VCUdQ1KQ3OLL1w3xTiZ">https://chat.whatsapp.com/D44VCUdQ1KQ3OLL1w3xTiZ</a>
    - No notes & recordings from 2 & 3 yet
    - Might want to follow Ramesh Raskar on LinkedIn: https://www.linkedin.com/in/raskar/