

## Meeting Minutes: GSA (Public Sector)

**Date:** 07/18/2018

**Time:** 2:00pm to 3:00pm EDT

### Attendance:

**Gray Brooks** = GSA API Primary POC

**Justin Herman** = GSA (role?)

**Joe Cosentino** = Senior Leadership/Business Partner, Sprezzatura

**Shane Johnson** = Management Analyst, Sprezzatura

**Nitin Sahai** = Enterprise Cloud Architect, Sprezzatura

**Thomas Holliday** = Senior Manager/Microtask Lead, Sprezzatura

**Mike Salvaggio** = Director, Health Informatics, Definitive Logic

**Nolan Ventre** = Project Manager, Definitive Logic

### Interview Agenda Items/Questions:

#### **General:**

- What is your role in your organization?
  - Mr. Gray Brooks, POC Federal Agencies at GSA (focused on standing up API programs [public APIs]). In the Federal Government space for the past nine years (Communications), but started with the GSA five years ago with a focus on open source and APIs and outreach (he runs their API website). Four years ago became perm at GSA (vice detailed over there).
  - API.data.gov referenced; facilitating and helping gov't agencies utilize APIs more.
  - Website: <https://www.gsa.gov/>
- How many API's do you build each year? How many are for external consumption? How many for Internal consumption? What are the security concerns for internal versus external consumption? Firewall relaxation process and procedures.
  - Primary focus on helping government agencies with building APIs, and helping them to source and use more APIs.
  - API first approach (both internal and external; data query).
- Do you utilize external industry publications such as Gartner?
  - Producing API (information or functionality).
  - Focus on DEV outreach and looking at analytics. Offer help where they can.

### **Prioritizing API's to Build:**

- How do you prioritize the API's you're building? Do you use an Agile Backlog, or other method? Do you evaluate based on Level of Effort and ROI, or use other metrics? Do you prioritize APIs as to their eventual utilization across the enterprise versus a single project?
  - What API to build first versus 2<sup>nd</sup>, 3<sup>rd</sup>, etc?
    - Mr. Gray Brooks: Start with something; ensure that it is recognizable and useful.
  - Mentioned the Federal Trade Commission. They used the GSA API management tool (could use any that you like).
  - Heavyweight versus Lightweight registration = What have you seen, what is driving things from your perspective?
    - Mr. Gray Brooks: It depends. 'We The People' White House example (open API). Can monitor folks independent of the technology (separate from user access and capability). Can use MuleSoft or CA (plenty of options).
  - VA Lighthouse (now API Platform) approach is to have several DEV Teams working at the same time (concurrently). Have you seen that approach elsewhere?
    - Mr. Gray Brooks: Not a bad idea; newer philosophy that they are following. HHS 'CMAS' (?) example brought up (I.e. two sets of Google Groups facilitating Blue Button API [comparable, but not exactly the same]).
- How much of your API backlog is defined by a Consumer's request? How much do you attempt to anticipate the needs of Consumers and build API's speculatively? Should speculative API development be more or less constrained by defined governance specifications?
  - Question not addressed specifically in this section of the meeting notes.
- How do you make choices between building Experience layer API's vs Process layer vs System layer API's? Experience layer API's vs Process layer development could conceivably be performed by different development team – how will the governance model be enforced when there is a multi-team development environment?
  - Question not addressed specifically in this section of the meeting notes.
- Do you allow Experience layer requirements to drive build prioritization on Process and System layer APIs? If not, why not? Or is the option of the building of “mocked” lower level API implementations (Process and System)?
  - Question not addressed specifically in this section of the meeting notes.
- If you have API's/services on legacy platforms, how do you decide when port those over to a new platform? Additionally, how these legacy applications will be “ported” – re-hosted, re-factored, re-built?
  - He encourages the process of Building/developing a API if its on a legacy platform or your switching to hosted
  - Gray: Avoided becoming a system owner; SAM.gov example ... yes. GSA Legacy system wrapping APIs around it. Not uncommon to take this approach. Also, spoke about automation.
  - Tough to frame the 'cost / benefit' statement as it relates to APIs. Have you seen that at other agencies?

- Mr. Gray Brooks: Yes. Have seen that other places. Automation and real-time discussed versus APIs. Integrating in real-time resonates with people.

### **Standards to Which to Build**

- Do you have multiple, unrelated teams, delivering API's into the same environment? If so, what lessons have you learned about configuration management across the environment/teams? What level of maturity are your Agile, CI/CD, Dev/Ops capabilities?
  - They are flexible and use plenty of vendors for their unique qualities.
    - Dev GitHub to Ansible to Environment.
  - Any tools that you recommend?
    - Mr. Gray Brooks: Not really. Asking ourselves what is modern and mainstream.
- Does your organization maintain formal standards for: API Contracts, Naming Conventions; Version Control, Branching, and Merging; Testing Requirements; Exception Handling; Logging; Security? Would you be able to share any documentation? How is this documentation presented – web pages, WIKIs, Playbook SharePoint sites etc.?
  - Documentation for developers = GitHub based API documentation, API utility testing.
    - API standards and best practices available at [GSA.github.org](https://github.com/GSA) (reference).
  - Just contributed to the standards started by other colleagues; got to adopt and modify.
    - Use GSAs APIs standards as a starting point (research already done).
  - Joe: Who do you think 'owns' the process within each Agency? None of the DEV people in the VA involved with Lighthouse have been involved in that (process).
    - Mr. Gray Brooks: VA Digital Strategy Team and CTO (team) should be good contacts.
- Do you experience a need to keep documentation and configuration control minimal/light? How do you ensure you're minimizing paperwork/bureaucracy and maximizing code delivery?
  - Mention of Agile, CI/CD, DevOps capability levels.
  - Documentation for, and Comms with DEV
    - Mr. Gray Brooks: Big question (good job / bad job he has seen). API creation vice upward progress and documentation. Do API documentation in GitHub; can use Microsoft. Take what you like and 'fork it' (??); Use others API templates and fork it.
  - FISMA mentioned
  - GitHub 'Issue Tracker' is a positive tracking and feedback mechanism tool.
  - API usability testing (big fan of this).
    - Bring others in as reviewers to ask the standard questions in an open environment to review what is there and state what they see as missing items.
- How do you enforce standards across multiple development teams?
  - Via API reference architecture and governance docs.

### **Consumer Experience**

- How many customers external to your organization consume your APIs?
  - Question not addressed specifically in this section of the meeting notes.

- What have you learned about development, testing, deployment that you apply to maximizing consumer experience?
  - Good developer experience.

#### **Closing Questions**

- Are there any internal documents (not published on your webpage) that you could share that would show how you apply governance internally?
  - He uses GITHUB a lot. It tracks issues very well which in turn assists his team.
- To whom do you look to for API governance best practices, with who else should we speak?
  - Mr. Gray Brooks: No. Just doing it. Sent a number of links to various forums (like the US Government Google forum). Monthly meetup in DC regarding APIs. Team would be welcome to come to the meetups and join the conversations.
  - 'Guide to starting an API working group at an Agency' referenced.
  - Join the Listserv; join the meetup.
  - Welcomes review of API docs and strategy docs (Mr. Gray Brooks is open to reviewing items).
- May we please circle back with any follow-up questions?
  - Mr. Gray Brooks: Happy to chat more later.

## Additional Reference Information and Analysis

### Important Links

- <https://github.com/GSA/api-standards>
- <https://groups.google.com/d/forum/Developer-group-for-cms-blue-button-api>
- <http://gsa.github.io/openIAE/> and [http://gsa.github.io/sam\\_api/sam/](http://gsa.github.io/sam_api/sam/)
- <https://apiumbrella.io/>
- [https://api-all-the-x.18f.gov/pages/open\\_source\\_documentation/](https://api-all-the-x.18f.gov/pages/open_source_documentation/)
- <https://api-usability-testing.18f.gov/>
- <https://www.meetup.com/DC-Web-API-User-Group/>
- <https://groups.google.com/forum/?nomobile=true#!forum/us-government-apis>

### **Microtask Requirement**

As the VA Lighthouse (now API Platform) Product Owner seeking the appropriate Governance model, I would like to understand, with the intention to adopt, best practices from the private and public sector, specifically for prioritizing APIs to build, standards to which to build APIs, and making the APIs usable by external consumers. We would like the primary research performed to gather best practices around:

- Characteristics of effective models in the public and private sector, and who is successfully using them.  
Including the utilization of leading edge API development enabling technologies (CI/CD, Dev/OPS, Micro service, Containers etc.).
- Lessons learned from these organizations (both what is working and what isn't)
- Highlight strengths and weaknesses of selected governance models.

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### **Interview Analysis**

Here are some items that we found interesting from the GSA call relative to how VA operates today:

**Lightweight Whitelisting Process** - We discussed the process to whitelist users of an API, including that of the White House's "We The People" API. GSA advised that the Whitelist process should be light, except when giving write privileges. They noted the IRS process was an extreme example of a heavy whitelisting process, driven by their requirements.

Analysis: We anticipate the white listing/authorization to use process at VA being challenging due to the number of business units, variety of use cases, and potential to handle PII and PHI. We recommend that the API Platform governance team create tiered templates for lightweight whitelisting and heavyweight whitelisting. These could then be presented as Out of the Box solutions for specific business line requirements.

**Demo's To Ensure a Positive Developer Experience** - GSA recommended having 2-3 "outside" developers come in and review web documentation on a new API. This "murder board" approach will poke holes in assumptions made by the development team.

Analysis: This is a useful idea to adopt and could be placed as a task or optional task in a contract. Our experience is that VA will ask an API consumer to do this. That's fine, but it risks wearing on the consumer as we're asking them to expend funds to support the VA's API development process. Recommend linking the requirement to have a small cadre of developers available for this type of review to that of a formal API Evangelist role within a governance structure (see below). Recommend that outside developers be engaged only when VA feels it has fully mature documentation based on a best practice (also see below).

**Pick and Use an API Developer Site as an Example** - When GSA plans to produce and publish developer notes to augment their API contracts, they look to other sites to determine best practices and then emulate those on their own API web pages targeted at developers.

Analysis: Documentation that is developer friendly, and highly accessible through public web pages, is typically not a requirement/specification within T4NG contracts nor necessarily a core competence of the current VA teams developing middleware services. Recommend that prior to any new contracts for API development being written, that a review of some API Developer webpages be completed in order to identify common denominator elements. These can be published in Playbooks, Design Patterns, and required in future contracts.

**Benefits of Internal Evangelism and Existing Government API Community** - It was interesting to learn about the larger community of government API developers and their participation on certain web sites and even in-person meet ups in the Washington, DC area. Outside of possibly Digital Services teams at VA, it is unclear to us that other Enterprise Shared Services, or other development teams, participate.

Analysis: We recommend that Evangelism be explicitly addressed in future API Governance initiatives. This Evangelism should include external outreach as well as internal outreach to VA development teams that could either ultimately expose an API publicly, or who could provide Process or System layer API's/services supporting exposed API's.