This document is now superseded by https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/teams/vsa/onboarding/VSA%20Technical%20Orientation.md

OLD CONTENT, TO BE DELETED:

VSA Developer Onboarding

02/20/2020
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What We Do

We are currently working on https://va.gov (public).
- VSA: [Veteran-facing Services Applications (VSA)](#); our team (applications).
- VSP: [Veteran-facing Services Platform](#); the platform team.
- VFS: Veteran Facing Services (consumers of VSP, including VSA).

Overview in reverse-chronological order (vets.gov now redirects to va.gov):
- November 2019: https://www.nextgov.com/it-modernization/2019/11/more-vets-are-taking-advantage-digital-services-through-new-vagov/161190/
- February 2019: https://www.fedscoop.com/va-celebrates-early-success-metrics-va-gov-relaunch/
- November 2018: https://www.youtube.com/watch?v=DEfRIL63nCg
- October 2018: https://fcw.com/articles/2018/10/02/redesigned-va-site-sammie.aspx
- Fall 2017: https://www.usds.gov/report-to-congress/2017/fall/vets-dot-gov/
- June 2017: https://medium.com/the-u-s-digital-service/vets-gov-a-modern-software-development-environment-in-government-2a0ec8f0623a

Improvements: https://www.va.gov/scorecard/
Playbook: https://www.va.gov/playbook/

Emphasis on *Product* (rather than *Project*) Management:
https://medium.com/the-u-s-digital-service/the-importance-of-product-management-in-government-b59933d01874

Forms System Framework:
https://medium.com/the-u-s-digital-service/building-forms-faster-on-vets-gov-d8619f4e9db

Our work is conducted primarily over public GitHub repositories:

- Docs: https://github.com/department-of-veterans-affairs/va.gov-team
- Backend source: https://github.com/department-of-veterans-affairs/vets-api
- Frontend source:https://github.com/department-of-veterans-affairs/vets-website

Our Stack

We have a React/Redux/Node front end with a Ruby-on-Rails back end, plus static site generation (build) to pull content from Drupal CMS and Markdown.

Front end:
- React
- Redux
- Node.js (*only for npm and build?; S3/CDN for production? Check into this....)
- Key Libraries:
    - VA.gov Forms System (VAFS) based on RJSF (react-jsonschema-form)
    - SASS: Formation (npm @department-of-veterans-affairs/formation)

Content:
- Drupal CMS
- Markdown (.md)
- TeamSite OpenText CMS (for older web pages; migrating to Drupal CMS)

Content Integration (build to extract Drupal and Markdown into static HTML):
- GraphQL: queries to extract data from Drupal
- Liquid: templates to expand data to HTML
- Metalsmith Static Site Generator: the content integration build; runs on Node.js
- TeamSite Integration (legacy): NGIX Web Server, AWS S3 (shared content), PERL

Back end:
- Ruby On Rails
    - Single rails app. Some parts "Modular Monolith" using engines.
    - Rails MVC for REST APIs,
    - Sidekiq for scheduled jobs

- ○ Gems?
- PostgreSQL (for some persistence, local app state; but most of the back end talks to other REST services rather than heavy local entity CRUD). Vets-api schema file
- PostGIS (GIS/spatial)
- Redis (in memory; for sidekiq, persist user objects)
- PDF tk (PDF generation)

Slack

Slack is preferred over emails; however, you may be getting meeting requests via email that you'll need to accept and add to your calendar.
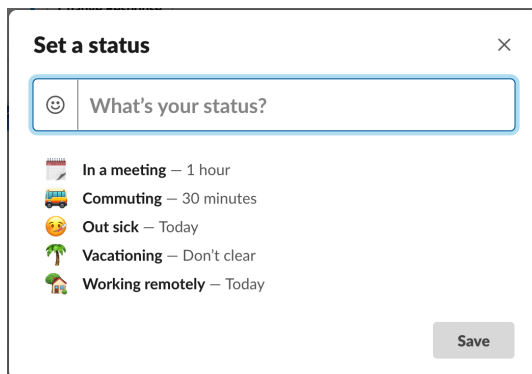
- Federal DSVA Workspace URL: https://dsva.slack.com
- Guidance:

  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/teams/vsa/onboarding/vsa-slack-guidance.md

- DSVA Channels:
    - ○ #general
    - ○ #random
    - ○ #vfs-all-teams
    - ○ #vfs-backend   Backend Developers, Technical
    - ○ #vfs-engineers   Jenkins deploy, VSP announcements
    - ○ #vfs-frontend   Frontend Developers, Technical
    - ○ #vfs-platform-support   VSP Platform Support (Help)*
    - ○ #vsa   VSA all teams and practice areas
    - ○ #vsa-authd-exp   Team: *Authenticated Experience*
    - ○ #vsa-bam-2   Team: *Benefits And Memorial #2*
    - ○ #vsa-benefits-memorial   Team: *Benefits And Memorial #1*
    - ○ #vsa-caregiver   Team: *Caregiver*
    - ○ #vsa-caregiver-engineering   Team: *Caregiver (just devs?)*
    - ○ #vsa-ebenefits   Team: *eBenefits*
    - ○ #vsa-engineering   VSA Frontend and Backend Engineers
    - ○ #vsa-facilities   Team: *Facilities*
    - ○ #vsa-product   VSA Product Collaboration (PMs, etc)
    - ○ #vsa-public-websites   Team: *Public Websites*

- ○ #vsa-vamc-upgrade   Team: *Medical Center*

* If you still have questions about getting started or where to find certain resources (after having internally checked within your team and lead), the #vfs-platform support channel is a good place to get some visibility to your question. It is the best way for team members to engage with the VSP Platform Support Team.

- Bots
  - ○ /wtf   Looks up VA Acronyms
    (source/data: https://github.com/department-of-veterans-affairs/acronyms)
- Apps
  - ○ Allow your work account for "Google Calendar" so that Slack can remind you of meetings and automatically set your status to "In a meeting"
- Status

In addition to setting your vacation time in the shared Google Calendar for PTO, remember to set your status for sick, commute (if within working hours), or vacation.

Zoom Meetings

- https://zoom.us/
- Sign in using your company's Google email account (e.g., pshort@governmentcio.com).
- Using free for now (40 minute limit for meetings over 3 people):
- Create a meeting in Zoom first, then export to email.
- After the meeting is visible in Google email/calendar, add attendees (from Google, not Zoom).
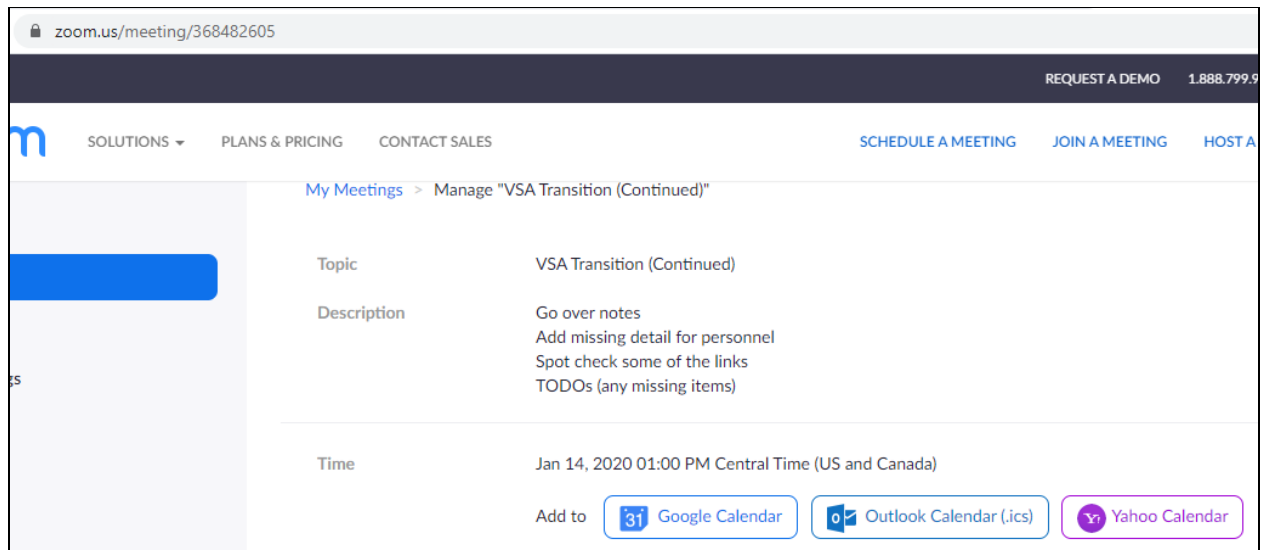
Google Drive: VSA Team

https://drive.google.com/drive/folders/0ACZ1e6Rs_6sDUk9PVA

Google Calendar (Shared): PTO

https://www.google.com/calendar/render?cid=governmentcio.com_rae2ref7gb5p67nmcuj2l7ege0@group.calendar.google.com

PTO Calendar: put your days off (approved vacation, sick, etc.) on our shared Google PTO Calendar.

Google Calendar: Work Account

- Since we have contractors with different email domains, you'll need to "Share with Specific People" so that at least your free vs busy times are available. This will help teammates schedule meetings.
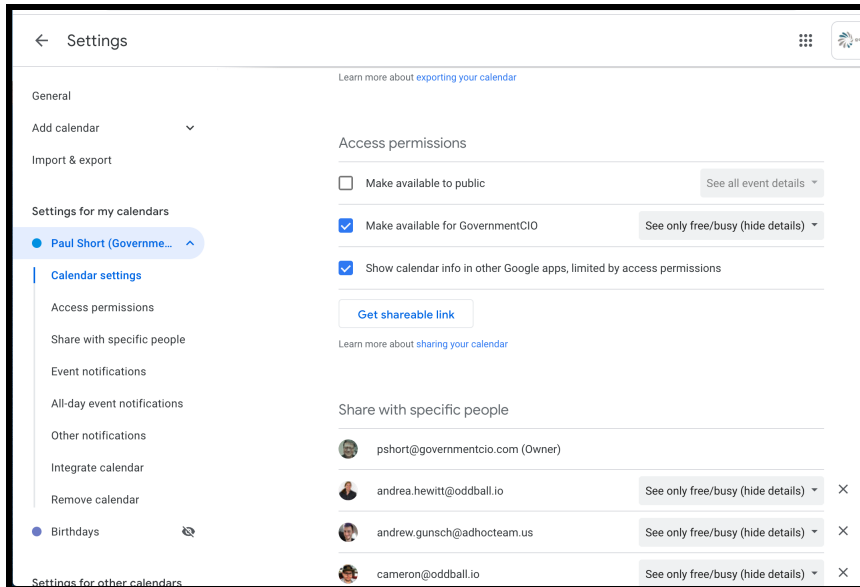
- In addition to putting time away on the PTO Calendar, you can also block off OOO times and appointments as events on your work calendar, but don't send them off as meeting invites.

- If you have recurring short events that may take you away from Slack (lunch break, driving, etc), communicate those with your team, but also put them on your work calendar.

GitHub

- **GitHub: VA.gov | Public Repo | CONTENT (Markdown)**
  https://github.com/department-of-veterans-affairs/vagov-content
  The VA.gov content repository (aka VA.gov Interim CMS) in Markdown (.md) format.

- **GitHub: VA.gov | Public Repo | CMS Integration**
  https://github.com/department-of-veterans-affairs/va.gov-cms
  Metalsmith, GraphQL, Drupal, Liquid Templates => build static HTML

- **GitHub: VA.gov | Public Repo | VETS-API**
  https://github.com/department-of-veterans-affairs/vets-api
  Backend Source Code: Ruby/Rails (mostly REST APIs)

- **GitHub: VA.gov | Public Repo | VETS-WEBSITE**
  https://github.com/department-of-veterans-affairs/vets-website
  Frontend Source Code: React.js, HTML/CSS

- **GitHub: VA.gov | Public Repo | TEAM Non-Code Docs (VSP, VSA/VSFs)**
  https://github.com/department-of-veterans-affairs/va.gov-team
  Non-code documentation for VSP, VSA, and VSFs teams.
  Note that this repo (va.gov-team) supersedes the "vets.gov-team" repo. That older repo was made private on January 2020, but most of the content was migrated to this repo.

- **GitHub: VA.gov | Private Repo | TEAM SENSITIVE**
  https://github.com/department-of-veterans-affairs/va.gov-team-sensitive

- **GitHub: VA.gov | Private Repo | DEVOPS**
  https://github.com/department-of-veterans-affairs/devops

- **GitHub: VA.gov | Client App Doc | Main**
  https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/

- **GitHub: VA.gov | Client App Doc | Set up Locally**
  https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/getting-started/
  Start here to learn how to set up your local VETS-WEBSITE and VETS-API development environments.

- **GitHub: VA.gov | Client App Doc | Run Locally**
  https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/getting-started/common-tasks/run-build/
  Continue here to run them locally.

- **GitHub: VA.gov | Client App Doc | Forms System**
  https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/forms
  VA.gov Forms System (VAFS). Uses RJSF (react-jsonschema-form).

- **GitHub: VA.gov | Client App Doc | Visual Design**
  https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/visual-design
  VA.gov is built on top of VA's design system (VADS). VADS is based on the US Web Design System. This site covers Formation Components and formation-react.

- **GitHub: VA.gov | Client App Doc | Platform**
  https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/platform
  Overview of the platform: MetalSmith, React, Redux, Drupal CMS, TeamSite. Pay attention to the menu/links on the left panel, because it has things such as content management integration, front end standards, unit testing (tools/conventions), build/deploy flow, Feature Flags (React, Drupal/Metalsmith, Node, Liquid; Release Toggles, Flipper UI) and a history of documented platform decisions (why/when).

- **GitHub: VA.gov | Client App Doc | Documentation Guide**
  https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/documentation-guide
  Meta: technical details on how to update content on the VA.gov Client Application

Documentation site.

- **GitHub: VA.gov | VSP | Main**
  https://github.com/department-of-veterans-affairs/va.gov-team/tree/master/platform/working-with-vsp

- **GitHub: VA.gov | VSP | Orientation**
  https://github.com/department-of-veterans-affairs/va.gov-team/tree/master/platform/working-with-vsp/orientation

- **GitHub: VA.gov | VSP | Request Access to internal tools**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/working-with-vsp/orientation/request-access-to-tools.md

- **GitHub: VA.gov | VSP | Deployment Process**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/engineering/deployment.md

- **GitHub: VA.gov | VSP | Review Instances**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/engineering/backend/review-instances.md#full-application-reviews

- **GitHub: VA.gov | VSP | Platform Code Review Guidelines**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/engineering/code_review_guidelines.md
  Pull Request (PR) guidelines (required in order to merge to master).

- **GitHub: VA.gov | VSP | Product Development Request Checklist**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/working-with-vsp/orientation/Product%20Development%20Checklist.md
  "All items here must be completed and signed off on by VSP before a new application can launch, and you should start convos about each item early - so you can work on them incrementally and iterate from day one."

- **GitHub: VA.gov | VSP | Request For Change (RFC)**
  https://github.com/department-of-veterans-affairs/va.gov-team/tree/master/platform/engineering/request-for-change

  Many of the RFCs do a good job explaining why things are the way they are. How to propose changes: create a RFC, then submit a PR so that it the RFC can be commented on and discussed; after consensus, merge/close.

- **GitHub: VA.gov | VSA | Main**
  https://github.com/department-of-veterans-affairs/va.gov-team/tree/master/teams/vsa

- **GitHub: VA.gov | VSA | Engineering**
  https://github.com/department-of-veterans-affairs/va.gov-team/tree/master/teams/vsa/en

[gineering](https://github.com/department-of-veterans-affairs)

- **GitHub: VA.gov | VSA | Engineering | QA Process**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/teams/vsa/engineering/qa/vsa-qa-process.md

- **GitHub: VA.gov | VSA | Engineering | Pull Request (PR) Process**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/teams/vsa/engineering/pull-request-process.md

- **GitHub: VA.gov | VSA | Engineering | Triage and On-Call Process**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/teams/vsa/engineering/devops/Triage-Process.md

- **GitHub: VA.gov | VSA | Orientation**
  https://github.com/department-of-veterans-affairs/va.gov-team/tree/master/teams/vsa/orientation

- **GitHub: VA.gov | VSA | Onboarding | Slack Guidance**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/teams/vsa/onboarding/vsa-slack-guidance.md

- **GitHub: VA.gov | CMS | Create Drupal Account**
  https://github.com/department-of-veterans-affairs/va.gov-cms/blob/master/READMES/cms-login.md
  Depending on the work that you do, you may need access to the Drupal CMS. To gain access to Drupal, a VA email address and access to the VA network (via CAG or a GFE) is required. Users can log on via CAG with a username and password or a PIV. If you have a VA email and VA network access, follow these instructions to create a Drupal CMS account.

- **GitHub: VA.gov | Private | DevOps | Config**
  https://github.com/department-of-veterans-affairs/devops/tree/master/ansible/deployment/config/vets-api

- **GitHub: VA.gov | Private | Team Sensitive | Accessing Staging**
  https://github.com/department-of-veterans-affairs/va.gov-team-sensitive/blob/master/Administrative/accessing-staging.md

- **GitHub: VA.gov | Private | Team Sensitive | VA Systems**
  https://github.com/department-of-veterans-affairs/va.gov-team-sensitive/tree/master/VA-Systems
  Backend developer integration to VA services.

Development System

Although we do not dictate whether developers should use Windows vs Linux vs Mac, almost everyone uses a Macbook Pro, so that's the path of least resistance. If you choose to use Windows or Linux instead, you should be ok, but there may be some configuration details you'll have to take up on your own (not as much support if you run into issues).

- Macbook Pro issued by US Resources to GovernmentCIO employees:
    - You'll have to call US Resources to get the password (account is not integrated into Active Directory)
    - The good news is that I was already set up as admin. If you are not admin, let US Resources know immediately, because you need to be.
    - If you upgrade to Catalina (recommended) you may need to acknowledge a few additional security prompts. I believe this came up with video and DisplayLink drivers though (dual monitor support), not the development software itself.
- Most tools are open source.
- We don't have Visio; I had to use the online version (Office 365).
- Software required for developers:

Software	URL	Description
Homebrew	https://brew.sh/	Package manager for macOS, this package is used via the terminal to install node.js, ruby and all the other software needed. Must be updated regularly in order to keep the repositories up to date. Software allows MAC users to install yarn, node.js and NVM.
GitHub Desktop	https://desktop.github.com/	Adds support for Git command line and allows us to work with the VA repositories.
Visual Studio Code	https://code.visualstudio.com/	IDE to modify and debug code.
Docker	https://www.docker.com/	Needed to run Ruby, Postgres and all the necessary tools to execute the VA APIs.
Yarn	https://yarnpkg.com	Dependency manager used on the VA frontend.
Node.js	https://nodejs.org	Needed to execute the website frontend.
Postman (for APIs)	https://www.getpostman.com	Needed to test and develop the VA API.
pgadmin	https://www.pgadmin.org/	PostgreSQL Tools.

Local Build Instructions

Front End:
https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/getting-started/common-tasks/run-build

 VETS API: https://github.com/department-of-veterans-affairs/vets-api

Internal Sites (SOCKS access)

Prerequisites (set up SOCKS5 Proxy access):
- https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/working-with-vsp/orientation/request-access-to-tools.md
- https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/engineering/internal-tools.md
- Example GitHub "Environment Access Request" Issue (Request for SOCKS)
  https://github.com/department-of-veterans-affairs/va.gov-team/issues/5120

Important sites reachable only through SOCKS proxy:

- Jenkins (Builds): http://jenkins.vfs.va.gov
- Sentry: http://sentry.vfs.va.gov
  (production errors: http://sentry.vfs.va.gov/vets-gov/platform-api-production/)
- Grafana: http://grafana.vfs.va.gov

Tips

- Use the ProxySwitchOmega Chrome Extension to access jenkins/sentry/grafana on vfs.va.gov.
  - Set ProxySwitchOmega to auto switch.
  - If you can't reach the *.vfs.va.gov sites from Chrome, remember to first run `ssh socks -D 2001 -N &` from the command line. (If you are running from within the VA, use `ssh socks-va -D 2001 -N &` instead.)
  - If you are getting 2001 port in-use related errors, be sure to close previous command line (terminal) sessions.
- REF: https://department-of-veterans-affairs.github.io/veteran-facing-services-tools/getting-started/internal-tools)
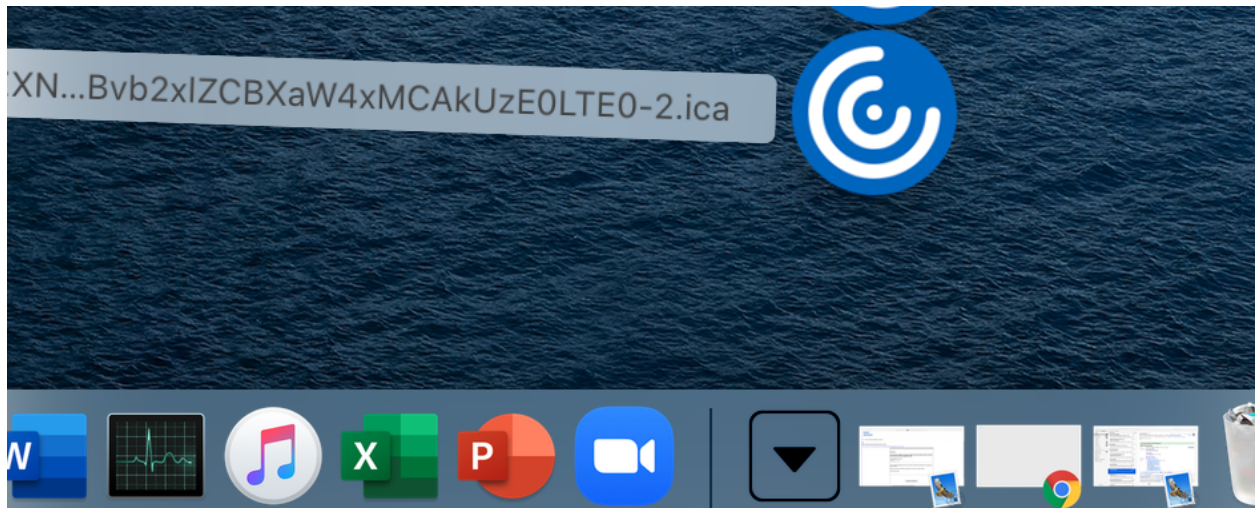
Citrix Access Gateway (CAG)

You may be required to use a VA email address and/or access internal VA sites for certain integration activities (such as backend service integration or discovery of sample data). As an alternative to lugging around Government Furnished Equipment (GFE), you can check your VA email and access internal VA web sites from virtual machines via Citrix Access Gateway (CAG) and your VA-issued Personal Identity Verification (PIV) card.

Tips:

- Bookmark the VA CAG site: https://citrixaccesspiv.va.gov/

- The instructions for VA email and CAG should come to you via email. If you haven't gotten yours, check with our onboarding coordinator, Julie Ramirez (Julie.Ramirez2@va.gov)

- Julie will also issue you a PIV card reader if you ask.
  - That's the best route if you don't have one already.
  - If you want to use your own, it needs to be TAA-compliant (https://www.amtgov.com/what-is-taa-compliance.html). The list changes, but countries that are currently NOT TAA-compliant include China, India, Indonesia, Iran, Malaysia, Pakistan, Russia, and Sri Lanka.

- On Mac, only Safari is supported for CAG (DO NOT use Chrome).

- I have found that on my system, in Safari, clicking on a Desktop in the Citrix StoreFront just downloads an ".ica" file (does not automatically run it); however, if you also click the downloaded file, that will launch the Citrix session.

- **GitHub: VA.gov | VSP | Accessing VA Network Without a VA Laptop**
  https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/working-with-vsp/orientation/accessing-va-network-without-va-laptop.md
  The actual POCs do not apply (it's outdated and/or applies to Ad-Hoc); however, some of the troubleshooting notes and steps here are helpful.

- **VA Service Desk (855-NSD-HELP)**
  Helpdesk support for PIV and CAG on Macs are limited, but they can walk you through screens and resolve any confusion you may have with installation and the the CAG web sites.
    - The technician I called said it's about 50/50 chance for a CAG to work due to PIV reader issues.
    - They can give you a two-week exemption to use username/password rather than PIV card.
    - If you continue to have problems, we can ask our COR to request a long-term exemption for you. Instead of a PIV, you'll use MobilePass instead, which is 2FA using your phone/mobile device.

- **What is a Personal Identity Verification (PIV) Card?**
    - https://www.oit.va.gov/programs/piv/
    - https://www.cac.mil/common-access-card/
    - https://en.wikipedia.org/wiki/Common_Access_Card
    - https://en.wikipedia.org/wiki/FIPS_201

- **MilitaryCAC.com**
  VA PIVs are essentially the same (hardware and driver-wise) as the DOD Common Access Cards (CACs), so I've found https://militarycac.com to be helpful if you have to get down to device/driver troubleshooting details. The site isn't officially endorsed by the

DOD or the VA, but is a community-recognized, grass-roots effort to fill in the gaps left by government help desks. Some of the context is Army/DOD-specific, but if you are technical enough or have the time to sort through those differences, the advice can be applied to VA PIV readers as well.

- https://militarycac.com/macnotes.htm#Mac_friendly
- https://militarycac.com/usbreaders.htm

VA Service Desk

The VA National Service Desk (NSD) (aka VA Enterprise Service Desk) number is 855-NSD-HELP (855-673-4357). For this project you might use it for issues with VA Citrix Access Gateway (CAG), VA email, VA Talent Management System (TMS), or outages/downtime associated with VA Enterprise Services.