

National Speleological Society

IT Division Report

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Prepared by:

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IT Division Volunteers		
Role	Name	Email
AWS Sys Admin	Andrew Northall	
AWS Sys Admin	Jesse Johnson	
Google Workspace Administrator	Kyle Gochenour	
Shared Hosting Administrator	Gary Bush	
Membership Database Coordinator	Bill Jackson	
VTC Database and Learning Management Administrator	Jerin Manalel/Georgia Schneider	
NSS Pretix Developer	Paul Walko/Philip Ballister	

IT Division Report

The IT Division is responsible for the NSS's digital infrastructure. It builds and maintains the technical infrastructure other divisions rely on to accomplish the Society's goals.

Note that the IT Division does not maintain content on caves.org. That is a marketing/comms role.

Below is a high level list of the NSS' tech stack(technical infrastructure maintained by the NSS). Below it is a compilation of all activities within the IT Division of the NSS:

Core/Org-Wide Infrastructure:

1. Amazon Web Services(Cloud Hosting)
2. Plesk(NSS Managed Shared Web Hosting)
3. Wordpress([Caves.org](https://caves.org))
4. YourMembership(Membership Database)
5. Google Workspace(Org email addresses, groups, shared drives)
6. YourMembership(Ecommerce)

Program Specific Infrastructure:

7. Moodle (VTC Learning Management System - class.caves.org)
8. Pretix(Event Registration Platform - tickets.caves.org)
9. VTC Trainer/Student Database(Airtable/Zapier)

Infrastructure in evaluation/planned

1. Shopify - (Ecommerce Platform)
2. Migrating Membership Database - Platform in evaluation
3. NSS Helpdesk/Knowledge Database - Platform in evaluation

Activity in this period:

Highlights in this period:

- The NSS launched Pretix (open-source RegFox alternative) and processed ~\$100k worth of orders for five organizations. The NSS now offers this platform for IIOs, regions, and other caving organizations to use for event registration. If you are interested in using it for your caving event please reach out to pete@caves.org. Each organization that uses it is given its own organizer account, and payments go through its own payment processor (Stripe, etc.). The NSS can also originate waivers for events that use it.

Amazon Web Services(Cloud Hosting)

Personnel: Andrew Northall, Jesse Johnson

AWS hosts all NSS servers and provides backups and security controls for the majority of other systems on this list.

Plans:

- Ensure uptime

Progress:

- Reworked backup systems for NSS infrastructure, specifically making backups easier for pretix which may need rapid restoration

- Ongoing WAF/security work

Problems / Concerns:

- None

Plesk(NSS Managed Shared Web Hosting)

Personnel: Gary Bush

Plesk runs on NSS infrastructure in AWS and provides self-service web hosting and control-panel access for internal organizations (grottos, sections, surveys) and other caving orgs. The IT Division maintains the server, backups, and security; IOs manage their own sites.

If you are interested in this service [please click here](#).

For a non-comprehensive list of sites managed through plesk, [click here](#).

Plans:

- Ensure uptime

Progress:

- Server OS updated

Problems / Concerns:

- Grottos continue to struggle to maintain their own web presence. While we believe that managed hosting is a benefit to members, there is confusion from non-technical IO members about what this service is. We encourage grottos who choose this to identify technical volunteers who understand that they, and not the NSS, are responsible for their website.

Wordpress([Caves.org](#))

Personnel: Pete Johnson

WordPress is the content management system behind caves.org, including its plugins, forms, search, member/IO integrations, and connections to other NSS systems. The IT Division maintains the platform and its integrations; page content is owned by Marketing/Communications.

Plans:

- Migrate NSS Wordpress instance to a dedicated EC2 with independent WAF

Progress:

- No Infrastructure tasks on [caves.org](#) this period.

Problems / Concerns:

- None

YourMembership(Membership Database)

Personnel:Bill Jackson

YourMembership is the system of record for NSS membership: member records, dues and renewals, and the member login used across other NSS services. The IT Division administers the platform and its integrations with caves.org and other systems.

The online directory of members can be found at members.caves.org

Plans:

- Migrate to a new Membership Database

Progress:

- Needs of the new system have been scoped
- Internal Survey has been distributed
- List of candidates has been compiled

Problems / Concerns:

- The existing database platform(YourMembership)has a number of technical limitations and user experience issues. It has been a long standing goal to replace the database and that effort is in progress.

Google Workspace(Org email addresses, groups, shared drives)

Personnel:Kyle Gochenour

Google Workspace provides caves.org email accounts, distribution groups for committees and IOs, and shared drives for organizational files. The IT Division provisions accounts and groups, manages access, and maintains the domain's email configuration.

Plans:

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Progress:

- Was granted a 300+ increase in the number of users for our free account by Google
- Cleaned out

Problems / Concerns:

- None

YourMembership(Ecommerce)

Personnel:Bill Jackson

YourMembership's store handles online sales of NSS publications, merchandise, and other paid items, tied to the member records for member pricing.

Plans:

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- Progress:**
- Shopify has been identified as the replacement candidate and implementation is in progress
- Problems / Concerns:**
- YourMembership is primarily a membership database platform. But the NSS has used it as its ecommerce platform. It is not good at this task and needs to be replaced.

Moodle (VTC Learning Management System - class.caves.org)

Personnel: Jerin Manalel, Hazel Barton

Moodle hosts the Vertical Training Commission's online coursework, delivering course content, quizzes, and completion records to students and trainers. The IT Division maintains the server and software.

Plans:

- Continue to ensure uptime

Progress:

- Resolved automation issues with Pretix/Airtable

Problems / Concerns:

- None

Pretix(Event Registration Platform - tickets.caves.org)

Personnel: Paul Walko, Philip Ballister, Nadya Spoon

Pretix is the NSS's self-hosted event registration and ticketing platform, giving convention, VTC, and other event organizers their own storefronts with online payment, check-in, and badge support. The IT Division built and operates the platform in AWS, including payment processing, email delivery, backups, and the automated waiver workflow tied to registrations.

Plans:

- Continue to ensure uptime
- Extend existing internal waiver functionality to all organizers.

Progress:

- Integrate Waiver origination from Pretix using DocuSeal
- Completed Membership validation plugin

Problems / Concerns:

- None

VTC Trainer/Student Database(Airtable/Zapier)

Personnel: Jerin Manalel, Georgia Schneider

Airtable serves as the VTC's system of record for trainers, students, courses, and course rosters, with Zapier automations feeding it from caves.org course requests, pretix registrations, DocuSeal waiver origination, and other platforms. The IT Division maintains the automations that match registrants through pretix to people records and push course enrollments to Moodle.

Plans:

- Assisting VTC in producing documentation for automated systems
- Implement automation for VTC Instructor Approval processes.

Progress:

- Resolved automation issues from migration to Pretix

Problems / Concerns:

- None

Infrastructure in evaluation/planned:

Shopify - (Ecommerce Platform)

Personnel:Pete Johnson, Russell Quinn, Michelle Kesler

The NSS has long used YourMembership as its ecommerce platform. It is antiquated and does not accomplish critical tasks for an ecommerce platform in 2026. Additionally reporting and other admin functions are difficult.

The NSS is in the process of implementing Shopify as its ecommerce platform.

Migrating Membership Database - Platform in evaluation

Personnel:Pete Johnson, Russell Quinn, Michelle Kesler

The NSS has scoped requirements and identified candidates for replacement platforms. In the next quarter implementation will begin.

NSS Helpdesk/Knowledge Database - Platform in evaluation

Personnel:Pete Johnson, Russell Quinn, Michelle Kesler

Various parts of the NSS utilize different platforms for How-To articles, internal guides, and other information for volunteers/staff/members. In order to provide a better experience the NSS is evaluating Knowledge Database platforms.

