

# Ben A. Mendis

Silver Spring, MD

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<https://github.com/Sitwon>

## CAPABILITIES

- **Programming Languages:** Scala, Java, Python, Bash, C, C++, C#, Perl, PHP, Ruby, XSLT
- **Development Tools:** Ant, SBT, Make, Autotools, JUnit, Subversion, Git, Mercurial, Bazaar, GDB, JavaDoc/ScalaDoc, IzPack, Django, Flask, Vagrant
- **Operating Systems:** Windows, Linux, Mac OS X, Solaris
  - **Windows:** 9x, 2000, XP, Server 2003, Vista, Server 2008, 7
  - **Linux:** Slackware, Ubuntu, RHEL 5/7, Debian, Gentoo, OpenWRT
    - Over 10 years on Slackware
    - Developed two custom live distros (TapDrive and Byzantium)
- **Networking:** 802.11, IPv4, IPv6, TCP/IP, Netfilter (iptables), Mesh
- **Security Tools:** Kismet, Wireshark, Nmap, OpenPGP, PKI

## PROFESSIONAL EXPERIENCE

**Software Engineer, Novetta Solutions , April 2015-present**  
**Bethesda, MD**

Novetta is an advanced analytics company that provides software and services to extract value from the increasing volume, variety, and velocity of data. The Cyber Analytics product enables security analysts to capture and query Petabytes of network traffic, providing near-realtime visibility. For over a decade it has been helping analysts on the front lines of continually evolving threats to network security.

- Extended the distributed processing and management capabilities of a legacy Python application.
- Working efficiently along side a UI developer, added RESTful APIs to the existing Django application to enable significant user experience and usability improvements.
- Designed and developed a new backend service using Flask for the RESTful interface and Git for the content storage, as part of a new product to assist teams of analysts.
- Wrote provisioning scripts for a Vagrant-based development environment.
- Developed integrations between our network analytics product and 3<sup>rd</sup> party tools.

**Software Engineer, GetWellNetwork Inc., March 2013-April 2015**  
**Bethesda, MD**

GetWellNetworkfi is the leading provider of Interactive Patient Care solutions serving hospitals and health care organizations throughout the United States.

- My team is responsible for maintaining a custom Linux distro for a DVR-like set-top box, and monitoring and supporting the 35k+ systems installed in hospital rooms throughout the US.
- I have become the team lead on security, the initramfs, kernel config, crashkernel, virtualization, and networking.
- I created a one-time login system for on-site technicians, encrypted filesystems to protect configuration details and patient PHI, and developed hot-patches to mitigate recently publicized vulnerabilities such as Shellshock and Heartbleed.
- I developed a self-updating boot-stick for installing the distro and performing diagnostics.
- I also redesigned the hot-patching system to improve efficiency, and extend its capabilities.
- Co-developed the reporting system for monitoring the health of deployed systems, and developed tools to assist in statistical and analytical analysis of the raw report data.

**Sysadmin/Software Engineer/Product Support, Antenna House Inc., November 2007-March 2013**  
**Kensington, MD**

Antenna House is a world leader in automated document formatting and typesetting. The flagship product, AH Formatter, is used by many of the worlds largest companies.

- Assisted customers, particularly in the areas of deployment and integration. Supported deployments on Windows, Linux, Solaris, Mac OS X, and HP-UX. Supported integrations using C, C++, COM, Java, .Net (C#, VB.Net), and scripting languages
- Engineered a significant piece of the purchase order system used by Boeing. Written in Java, about 1500 lines of code. Wrote a custom thread pool class to handle unique deployment requirements. Used reflection to support multiple file-types.
- Maintained critical infrastructure including testing systems, demo servers, development servers and repositories, ticketing system, and periodic backups. Recommended and performed a migration from Mojo Helpdesk to a self-hosted RequestTracker installation. Doubled the number of tickets handled per day and halved the response time on new tickets.
- Developed product samples, online demos, alternative APIs, and internal tools to test customer-reported issues and validate fixes. Led the design and development of a visual regression testing tool, written in Scala, which is now becoming a commercial product offering.

**Board of Directors, HacDC, February 2011-2015 (Member since 2009)**  
**Columbia Heights, DC**

HacDC is a Makerspace in DC and a registered 501(c)(3). We act as a hub for DC-area residents who are passionate about technology, art, and education. HacDC provides space for collaboration, tools for DIY fabrication, and organizes lectures, workshops and social events to connect DC's geeks and artists.

- Served in various board positions, including President.
- Led the design and development of Project Byzantium, a live Linux distribution that enables rapid deployment of a mesh network in emergency situations such as natural disasters or political protests. We have collaborated with developers from around the world, given talks at security and technology conferences, been interviewed by NPR and Slashdot, and were mentioned by Fast Company.
- Taught an introduction to Computer Science class based on "The Elements of Computing Systems". It is a one-semester course in which students build a simple but functional 16-bit computer system from NAND gates all the way up to a high-level language and OS.

**Senior Product Engineer and CSO, TAP Innovations LLC, November 2009 – February 2011**  
**Alexandria, VA**

TAP Innovations was a start-up that aimed to deliver a secure computing environment that could offer consumer and businesses the ultimate peace of mind when conducting sensitive business online.

- Engineered a security-hardened, live-bootable re-spin of Ubuntu Linux with several unique innovations. The core operating system was installed on a hidden, read-only partition to prevent intentional or accidental tampering. All the user's settings and files were stored encrypted on the visible, primary partition. Files could be copied on like a normal thumb drive and they would appear in a special unencrypted shared-directory on the user's desktop.
- Developed a methodology for securely updating the read-only OS using a second hidden partition, an overlay file system, and cryptographically signed update packages.
- The distribution passed a security assessment conducted by Securicon LLC.

**Information Technology Expert, Innove Technologies LLC, March 2006 – December 2009**  
**Kensington, MD**

Innove Technologies is a small consulting firm specializing in social media marketing, reputation management, and web application development. Under the FiveStar Wi-Fi brand name they sell a line of Wi-Fi Hotspot related products to help small businesses stay competitive.

- Provided expertise in areas of wireless networking, security, and Linux administration.

- Developed the Wi-Fi Printing System, one of the earliest wireless printing systems on the market. Supported printing from iOS and Android before either Apple or Google had addressed this natively.
- Developed the Wi-Fi Web 2.0 Portal, an advanced captive-portal system with social-network integration, QoS/traffic shaping, and per-session time-outs that nag users to buy another coffee. It also provided logging and metrics for the business owner so they could track busy hours or percentage and frequency of return users.
- Developed and maintained plugins for the Openfire XMPP Server (Java) which were used to build a social networking site for a company called MusicianLink, and allowed their JamLink devices to connect with each other.