



## Arkadi Poliakevitch

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*30 years of IT experience in multiple areas of computer systems, software, networks, storage, security and programming. Worked in Russia, Canada, USA, Curacao and New Zealand.*

## Skills

### Software Development

- **PHP** implementation of 7 **RFC** and MS Open Standard **SSL certificate management protocols** for an internal PKI, including **CMP** (rfc4210), **ACME** (rfc8555), **EST** (rfc7030), **OCSP** (rfc6960), Certificate Store Access (rfc4387), **MS-XCEP**, **MS-WSTEP** (SOAP, WSDL). **SQLite** certificate store database.
- **Creatica Chessgame Analyzer** <http://chessgame-analyzer.creatica.org/> in **C#**. Chess library is re-written later in **C** for performance, python binding and ML programming
- **Programming embedded systems** such as popular wifi module ESP8266, GNSS u-blox M8, environmental sensors Bosch BME680/BME280, DHT22, **Arduino boards**, gyroscope, accelerometer and magnetometer Inven-Sense MPU-9250, **Raspberry Pi** GPIO, chronoscope and **iOS apps** for remote control. Some examples are in <https://github.com/creatica-soft>

- Web-based application in **.NET** to track the hardware inventory, customers, service calls and contracts. It included the **MS SQL database design** and implementation
- Web-based application in **.NET** to manage the resident Internet services. It included **interfaces to MS SQL and Oracle databases** as well as **SNMP** commands to activate/deactivate connections on **HP/Cisco switches** and view the stats
- Web site written in **PHP** to process online purchases of products and services (<http://safetyline.ru/>)
- **cTrader and Interactive Broker Trader Workstation programming in C#**
- **C, C++, C#, Swift, PHP, VB, VBScript, JavaScript and shell scripting**

## Network Administration

- Large, medium and small **LANs** and **VLANs** (Network cabling, administering **Cisco Catalyst/HP** switches, **STP, (R)PVST+, MST, DTP, VTP, Etherchannel PAgP/LACP**)
- IP routing and **NAT** (**Cisco/Open source** routers and gateways, **RIP, OSPF, EIGRP, BGP**)
- Wireless networks (**Cisco WiFi routers**)
- Network **AAA** (Authentication, Authorization and Accounting) – **IEEE 802.1x** using **RADIUS** with **EAP-TLS** and **PKI**
- **WAN - Site-to-site VPNs** using **Cisco** and **Checkpoint** appliances and software (**IPsec-based**)
- **Remote access via VPN** (**Checkpoint, IPsec** and **SSL/TLS based**)
- **Software-base OVS/OVN virtual switches and networks**

## Network Security - **Cisco ACLs, Checkpoint with IPS** and Open source firewalls (**pf, spf, ipfw, iptables**)

- Penetration testing with **Kali Linux** (cracking WEP passwords, dictionary attacks on **WPA**, etc)
- Network tools and utilities such as **ping, arp, netstat, ifconfig, nslookup, dig, tcpdump, snoop, nmap, net-snmp, network monitor, wireshark, MRTG, Cacti, Cisco IOS**
- **Patching vulnerabilities** in software and firmware **to prevent the exploits**
- Change control, documentation

## Computer Systems Administration

- **Microsoft Windows** servers, **Active Directory, MS SQL, Exchange, IIS, ISA, SharePoint, DNS, DHCP, Cluster servers**
- Most **Unix and Linux** servers including **HP-UX, AIX, Solaris, Linux (RedHat and Debian), OpenBSD, FreeBSD**
- Open Source software: **Apache, NGINX, Squid web/proxy/load balancer servers, sendmail/postfix, imap/pop3 mail servers, ISC bind DNS, DHCP, EdgeWall trac (svn and wiki), SSH, etc.**
- **Virtualization** software including **Solaris Hypervisor and Zones, VMWare (Workstation and ESX), VirtualBox, Hyper-V, Openstack private cloud, KVM, Kuberbetes, Docker, linux containers (lxc, lxd)**
- Monitoring tools and utilities: **Nagios** with its numerous plugins, including some scripted by myself, **OpenNMS, Cacti**

## Storage Administration

- **NetApp NAS and EMC SAN** storage appliances (**F-series, Clariion and Symmetrix**) as well as **Sun, IBM** and others **RAID** arrays, **Brocade FC** switches and FC networks
- Backup, recovery and archiving technologies, including hardware and software from **Qualstar, BreeceHill, Exabyte, Quantum, CA ArcServe, Veritas Backup Exec** and **NetBackup, Legato NetWorker**

## **Database Administration**

MS SQL Servers, Unix and Linux postgres and MySQL.

## **Software Development Support**

Software development tools support such as **Git, SVN, CVS, Bugzilla, Wiki, BB, Trac, IRC**, etc.

## **IT Consulting**

- Technical presentations on various topics for pre-sale and post-sale products and services alone or accompanied by sales representatives
- The clients include **Verizon, Comcast, PMC-Sierra, Electronic Arts, Future Shop, BCAA, Stantec, Telus, MDSI, Glenayre, GVRD, CRSA, Caterpillar, Motorola, Servier Pharmaceuticals, Toyota Motor, Delphi Automotive Systems, Allied Domecq, Briggs and Stratton, Philip Morris, Mezregiongas, colleges, school districts, universities and hospitals**

## **Excellent Documentation Skills**

For examples, please see [my wiki page \(http://wiki.creatica.org/\)](http://wiki.creatica.org/) or for other projects not related to IT, see [building a house](#), [building a sailboat](#) and [renovating old sailboat/cruising](#). The hidden URL links are under Life- Time Achievements.

## Work History

**Senior Enterprise Applications Specialist**, timbre Digital,  
Auckland, New Zealand  
April 2017 – current

Managing Enterprise Applications for international customers. Starting as a Network Security Engineer, I was transferred to Enterprise Applications. Initially I looked after Tableau reporting, IBM Unica marketing, Strongmail mass mailing, VPI customer interactions, Moxie customer support, etc. In the last three years, I worked on

- an Openstack cloud architecture, including an automation of an installation and upgrades of Openstack cloud using linux shell scripting
- Kubernetes cluster deployment and support
- Docker image building for numerous applications
- a PHP implementation of 7 RFC and MS Open Standard SSL certificate management protocols for an internal PKI
- Linux shell scripting for an automated deployment of Data Science workloads in Kubernetes written in R and python

**IT Manager**, Gamesys NV, Willemstad, Curacao  
June 2009 - March 2016

- Configuring, upgrading, troubleshooting and monitoring for performance and security the online casino web sites <http://www.betcruise.com/> This includes:
  - **Linux (CentOS)/Unix (Solaris, FreeBSD)** servers operation
  - **VMWare ESX cluster** support

- **Apache web servers** administration and maintenance
- **NGINX reverse proxy for load-balancing** setup and support
- **ISC bind DNS servers** (primary, secondary, replication, forward and reverse zones)
- Email system support: **sendmail/postfix, IMAP, Spam Assassin, ClamAV, Sieve**
- **Nagios, Cacti** for performance and availability monitoring
- **Cisco/HP** switches for Layer 2 security, redundancy and performance
- **Checkpoint appliances with IPS** for preventing and mitigating the attacks and exploits
- **VRRP** routing for redundancy
- Software developers support (**Trac software, SVN, Wiki, Solaris package management**)
- Developing strategic IT plans and writing documentation for licensing new online casinos in other parts of the globe.

**Remote IT Consultant**, Securia Ltd, Moscow, Russia

April 2011 - April 2015

- Developed **Apache/PHP/MySQL** e-commerce project <http://www.safetyline.ru/>
- Integrated the above project within the web site of Sheremetyevo International Airport (<http://svo.aero/>). Translated the Russian pages to English
- Connected **credit card processing** via Sberbank using **Web services, SOAP, WSDL, WSSE**

- Automated MS Excel worksheets in **Visual Basic**

**Senior Systems Administrator**, Hiteco Ltd (aka Softals Ltd),  
Moscow, Russia  
June 2008 – March 2009

- Systems and network administration of software development company
- User administration and support for 50 people
- **Nagios** monitoring of **30 Solaris and Linux servers**
- Security administration: **Cisco, Checkpoint, Solaris, FreeBSD and Linux firewalls, Kerberos + NIS, SSH, SSL**

**IT Manager**, Invidi Technologies Corp, Edmonton, Canada;  
Princeton, USA  
March 2005 - March 2009

- Starting as a senior systems and network administrator for a medium size software development company (<http://www.invidi.com/>), I was promoted to IT manager
- **Solaris on Sun servers, Linux (Fedora), OpenBSD, MS Windows servers, including Exchange, Active Directory**
- Network administration with **Cisco/HP switches, routers, WiFi, Checkpoint firewalls**
- **DevOps support: CVS, SVN, wiki, Bugzilla, IRC**
- **Supervised a junior systems administrator**
- Supported **50 users in 4 locations**

**Senior Network Administrator**, University of Alberta, Edmonton, Canada  
September 2003 - February 2005

- Monitored and troubleshooted large local area network of few university residences consisted of **hundreds of switches and tens of firewalls**
- Administered and supported over **2,000 students and employees**
- Prevented, detected and eliminated security breaches
- Closely worked with University Computer and Network Services for **copyright infringement complaints, spamming, DoS attacks and other network abuses**
- Created a web site for resident Internet access, which included manuals, knowledge base, email support, automated subscription, work order system, user traffic statistics and billing for overuse
- **Supervised 9 junior network administrators.**

**Technical Lead**, Zentra Computer Technologies, Vancouver/  
Edmonton, Canada  
December 1998 - August 2003

- Started as a field service technician for storage products from **NetApp, EMC, IBM, HP, Qualstar, Exabyte, Quantum** and others, I grew to a technical lead who assisted sales representatives in project management
- Created web-based application to help manage the inventory and track customers and service calls
- Gained extensive knowledge and certifications in storage area such as **NAS, SAN and tape library** backups

**Technical Consultant**, FM Technologies LLC, Moscow, Russia  
March 1998 - September 1998



- Computerization of Moscow offices for large overseas companies, including cabling, server and desktop configuration and software installations
- Provided system maintenance and customer support to the above mentioned companies
- **Year 2000 consulting project for Philip Morris.**

**Field Technician**, Lot Ltd, subsidiary of IBS, Moscow, Russia  
February 1997 - February 1998

Installation of hardware and software for 13 Mezregiongaz offices around Russia. Each office installation consisted of 2 Microsoft Windows servers, 20 Windows workstations, Microsoft BackOffice software, network cabling.

**Technical Director**, Computer Service HUB Ltd, Tomsk, Russia  
September 1996 - January 1997

- I was the owner of my small company focused on computer manufacturing, sales and support
- I provided computer training to children
- I supervised two junior technicians

**Computer Technician**, Ottis Ltd, Tomsk, Russia  
September 1994 - August 1996

I started with personal computers assembling and later was promoted to a service technician, who dealt with in and out of warranty issues, computer and peripheral equipment repairs, customer software and hardware support.

**Life-Time Achievements (not related to IT)**

## **Built a two-storey 200 sq m house in Canada**

I followed the old saying that a man must plant a tree, build a house and have a child. I spent 110K and the appraisal was over half a million! 5 times return on investment!

I documented the construction on my web site: <http://house.creatica.org/>

## **Built a steel Bruce Robert Voyager 38 cutter hull**

After I finished the house, I built a sailboat hull of Bruce Robert's Voyager 38 from steel without any formal training in welding!

The documented project can be found at <http://sailboat.creatica.org/>

## **Renovated 1974 Hallberg-Rassy 31 Monson sailboat**

Being unable to finish the Voyager 38 due to family circumstances, I sold the finished hull and bought a used HR 31 Monson. I completely redid most of its systems, including electrical, plumbing, rigging, re-powering with brand new engine, electronics, etc. The project is documented at <http://beruta.creatica.org/>

## **Walked Te Araroa Trail**

3,000 km from the most northern part of New Zealand Cape Reinga to the most southern part, Bluff in 17 weeks. Made 4 episode documentary film, which is available on YouTube ("Following The Shadow - Te Araroa")

## **Education And Training**

**Jazz Piano Musical School Diploma**, Novosibirsk, Russia, May 1988

**MS Diploma in Engineering Physics**, Tomsk State University, Tomsk, Russia. April 1994

**Microsoft Certified Systems Engineer**, Microsoft, Tomsk, Russia. July 1997 **Three courses of HP-UX 10.x**, Hewlett Packard, Moscow, Russia. April 1998

**Microsoft Certified Systems Engineer + Internet**, Microsoft, Moscow, Russia. July 1998 Upgraded to Windows 2000 in 2001. **IBM Professional Server Expert**, IBM, Toronto, Canada. June 2000

Various courses, including Netfinity Manager/IT Director **CompTIA A+ Certificate**, CompTIA, Vancouver, Canada. September 2000

**Data ONTAP System Administration**, Network Appliance, Las Vegas, USA. December 2000

**Data ONTAP Advance System Administration and Troubleshooting**, Network Appliance, Las Vegas, USA. December 2000

**HP 9000 Professional**, Hewlett Packard, Vancouver, Canada. December 2001

**IBM AIX Administrator**, IBM, Toronto, Canada. January 2002  
**IBM p670/p690 Professional**, IBM, Toronto, Canada. January 2002  
**Brocade SAN training**, Brocade, Calgary, Canada. January 2003

**KVS Enterprise Vault training**, KVS, Calgary, Canada. January 2003. Archiving software for MS Exchange server.

**F5 BigIP LTM Getting Started course**, online, November 2016

**Cisco CCNP Routing and Switching course**, online, November 2016

**Cisco CCNP Security Technologies course**, online, November 2016

**David Silver's Reinforcement Learning ML course**, online (<https://www.davidsilver.uk/teaching/>), November 2022

**PADI Open Water Instructor**, PADI, Bavaro, Dominican Republic. March 2010

**IYT Master Of Yacht 200 tons**, IYT, St. Martin. May 2011

## Interests and Hobbies

Besides my interests in IT, physics, cosmology and genetics, I like sports such as yoga, hiking, biking, sailing, windsurfing, scuba diving and chess. I'm certified PADI Open Water Instructor and IYT Master of Yacht 200 tons. I crossed the Atlantic ocean and Mediterranean sea four times, circled Caribbean sea two times and crossed the Pacific ocean, most of the time I sailed my Hallberg-Rassy 31 Monson sloop named Beruta single handed (see my cruising blog at <http://beruta.creatica.org/log.html>).

My chess rating is around 1,900 ELO.

## References

Reference letters are available in my LinkedIn profile: <https://nz.linkedin.com/in/arkadi-poliakevitch>