

Robert LeBlanc

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I am a Senior Systems Architect and Engineer who continually looks outside of the box to find innovative solutions to IT problems. My goal is to build solutions that reduce costs, increase productivity, and transform IT into a business enabler.

EXPERIENCE

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| Storage & Server Architect | <i>Better Servers, Inc, Orem, UT</i> | <i>Mar 2016 - Nov 2018</i> |
| <ul style="list-style-type: none">• Implemented iSER storage capable of PCIe speeds (~10.9 GB/s) over layer 3 Ethernet networks.• Wrote Linux kernel patch and Mellanox OFED patch to add iSER source port binding to enable storage multipathing without complex routing rules.• Created Dracut module and Python program to query a database and automatically configure all system interfaces and routing for diskless and disk based systems, enabling changes to be pushed out in minutes.• Assisted in design of SQL database to provide role and group based IP address assignments allowing for configuring multiple machines with few database entries.• Provided knowledge and implementation details to create dynamic and robust iSER/iSCSI connections.• Completed project objectives by adjusting to the needs of difficult personalities and elevating their strengths.• Identified team skill deficiencies and took the initiative to learn those skills to complete our projects. | | |
| Senior System Architect | <i>Bluehost, Provo, UT</i> | <i>Jul 2014 - Mar 2016</i> |
| <ul style="list-style-type: none">• Designed new object storage system for OpenStack based on Ceph.• Helped maintain custom iSCSI SAN solution currently in production. | | |
| Server & Virtualization Engineer | <i>Brigham Young University, Provo, UT</i> | <i>Jul 2010 - Jul 2014</i> |
| <ul style="list-style-type: none">• Designed, implemented and maintained university server and storage hardware infrastructure.• Designed and implemented a university private cloud using VMware vCloud Director. Increased usage from 12 departments using vCenter to 42 departments utilizing the same hardware.• Designed the university's next generation datacenter with virtualized I/O using Oracle OVN (Xsigo). 198 blades to 54 (73% server reduction), 3.46x bandwidth to the blade, 69% cable reduction per blade chassis, 52% reduction in switching power consumption, reduced 38KW in blade consumption (75% reduction), increased CPU utilization from 7% to 22% and reduced RAM utilization from 85% to 45%.• Designed clustered Raspberry Pi time servers for campus to reduce expenses and increase flexibility. | | |
| Computer Support Specialist | <i>Brigham Young University, Provo, UT</i> | <i>Jan 2002 - Jul 2010</i> |
| <ul style="list-style-type: none">• Designed, implemented and maintained server and storage hardware and software for the college.• Maintained Active Directory and centralized software package management to improve help desk efficiency.• Managed college Linux supercomputer for biology applications promoting college academic research.• Assigned projects to team members to encourage growth in knowledge and experience.• Implemented virtual technologies to reduce college server operating costs and increasing efficiency.• Advised and collaborated with faculty and staff to provide solutions to their computer needs. | | |
| Web Developer | <i>Global PTM, Houston, TX</i> | <i>Feb 2008 - Feb 2009</i> |
| <ul style="list-style-type: none">• Developed web application for customer using VB.NET.• Implemented database transfer utilizing scripting and modeling techniques.• Scoped project and maintained positive customer relations.• Collaborated with a team of programmers to accomplish the project. | | |

SKILL SET

- Operating Systems**
 - *Apple*: All server and desktop versions up to 10.6 (Snow Leopard)
 - *Linux/Unix*: Debian 3-9, CentOS 5-7, Red Hat 5-7, other distros, Solaris, Irix
 - *Other*: Android, all versions of DOS including FreeDOS
 - *Windows*: All Enterprise Windows server up to 2008 R2 and desktop up to Windows 8
- Software**
 - *Blockchain*: P2pool, Bitcoin/Altcoin wallets, ElectrumX, mining software
 - *Clustering*: Corosync, SLURM, Open MPI, Heartbeat, Microsoft Clustering (MSCS)
 - *Directory*: Microsoft Active Directory, LDAP, Yellow Pages (NIS)
 - *Domain Name Service (DNS)*: Berkley BIND, Microsoft DNS
 - *Mail*: Postfix/Exim, Microsoft Exchange, SpamAssassin
 - *Security*: Symantec Endpoint Protection, Apache Reverse Proxy, IPtables, Wireshark, Snort, tcpdump
 - *Storage*: iSER, iSCSI, RAID, Btrfs, ZFS, NVMeoF, Ceph, LVM, LDM, Fibre Channel, NFS, CIFS, LUKS, Lustre
 - *Web & Database*: Apache, Microsoft IIS, Tomcat, MySQL, Riak, MS SQL
- Hardware**
 - *Communication*: RoCE, OVN (Xsigo), Infiniband, Fibre Channel, HP, Cisco UCS
 - *Servers*: SuperMicro, Dell blades and rack mount, HP c-class Blade series
 - *Storage*: HP EVA, EMC CX, LSI, Hitachi VSP, Dell MD, FalconStor, Compellent
- Programming Languages**
 - *Languages*: Python, ANSI C, C#, Javascript, Java, Perl, PHP, VB.NET, Powershell
 - *Shell Scripts*: BASH, TCH, DASH, Windows BATCH
- Virtualization**
 - *Open Source*: LXD, LXC, KVM, Open Stack, QEMU, libvirt
 - *Oracle*: VirtualBox, Oracle VM
 - *VMware*: vSphere 3.x/4.x/5.x, VCD 1.x/5.x, Workstation, Fusion, ThinApp

EDUCATION


Bachelor of Science **Information Technology** *Brigham Young University, Provo, UT* *April 2006*

- Emphasis in Linux and Windows administration, networking and security.
- Increased practical knowledge of computer systems and built team unity and leadership through class projects.
- Designed and implemented a Linux embedded wall mounted home automation control panel in a group project.

Master of Science **Information Technology** *Brigham Young University, Provo, UT* *Aug 2014*

- Masters thesis focused on I/O virtualization and the corresponding business impacts.
- Emphasis in virtual machine virtualization as well as I/O virtualization.
- Statistics for research experiments, digital storage systems, business and leadership.

AWARDS AND ACHIEVEMENTS

- Contributed to Open Source projects: p2pool, mdadm, RDMA-core, Ceph, LXC, Samba
- VMware Certified Professional (VCP3) 
- Eagle Scout Award
- Two year religious service where I learned how to effectively work with diverse personalities, cultures, and viewpoints.