

Shaur Usmani

Bartlett, IL

-Email me on Indeed: <http://www.indeed.com/r/Shaur-Usmani/32e183fbe7cb2443>

Over 21 years of experience in LTE, WiMax, UMTS, GSM, TDMA, CDMA, and IDEN RF design, optimization, performance analysis, integration, testing, implementation, troubleshooting & Leading and Managing projects. Excellent knowledge of RF system engineering and wireless network design principle. Expert with wireless system test equipment, such as TEMS, Agilent, signal generation, spectrum analyzer, VSWR testing, signal receiver, power meter. Demonstrated skill problem solving, data analysis, data collection and report generation. FCC/FAA filing and sites preparation. Team player, well organized, creative and a problem solver. Flexible to work in any shift in case of emergency or scheduled work.

Work Experience

RF Engineer

Dish Network

August 2021 to Present

Responsibilities included but not limited to;

- Evaluated the provided candidates in SCIP packages for best possible candidate.
- Ran prediction for provided candidates with different CL and azimuth on Planet.
- Calculated pops covered under each candidate.
- Compared each candidate with other provided candidate to determine the best candidate.
- Prepared power point for manager and general manager following the provided template.
- Looked at the provided RFDS and made corrections.
- Looked at the provided CDs for approval.

Senior RF Design Engineer

Verizon Wireless/ETEAM

December 2019 to July 2021

- Submitted site for Regulatory Approval through FUZE for 5G, 4G, CBRS and LAA.
- Checked the sites in RAVE for approval for Monopole, Guy tower and SST.
- Used Roofmaster to creating EME emission for signage.
- Requested for 3rd party EME report from TELNET
- Updating ATOLL to reflect the updated info in RFDS
- Creation of RFDS and Diagram.
- Creating WD/Plumbing Diagram
- Worked on SUB6 project for Regulatory and power settings.
- Ran AM study and generated certificates and uploaded
- Ran AIRSPACE for new and existing sites
- Fixed Mismatches of FUZE and Atoll
- Worked with Planning/RF Engineers to resolve the issues of many different DB.
- PIM and Sweep review
- CD Review

RF Engineer

Crown Castle

April 2018 to December 2019

- Responsible for Entire Sprint Project for Chicago and Milwaukee area.
- Selecting primary pole for Sprint for small Cell.
- Familiar with small cell architecture.
- Checking for anchor tenant, pole viability for Sprint.
- Fiber rout availability to the pole.
- Creating WD, DD, BOM.
- Creating SCAF for Sprint approval.
- Changing node location if anchor tenant moved and updating 3-GIS.
- Supporting VzW and TMO projects to review, CD/1A, PIM/Sweep, COP.
- Created Atoll plots for new/replace antenna for VzW approval for Cincinnati, Columbus, Cleveland and Milwaukee markets.
- Created drive route for TMO Detroit, Milwaukee using Map Info.
- Knowledge of 2G, 3G, 4G wireless technologies.

RF Engineer (Cluster Engineer)

Verizon Wireless/FES

February 2017 to April 2018

- Candidate Review
- Finalizing Primary Candidate
- Communication with SP for finalizing Primary Candidate
- Creation of RFDS and Diagram.
- Regulatory Submission
- Updating ATOLL before Regulatory filing.
- Submitted site for Regulatory Approval through Siterra/Fuze.
- Setting up ERP with max power per transmitter in Atoll for all LTE technologies.
- Reviewing Close out packages and providing feedback
- Review of Sweep and PIM
- Requesting for Pre EME study for rooftop and water tower sites.
- Checking AM, FAA and ASR for existing and new towers.

RF Engineer

T-Mobile/LCC International - Tampa, FL

June 2016 to January 2017

- Reviewing Close out Packages
- Reviewing RFDS
- Reviewing TMA gain results
- Checking PIM test results
- Checking Port Matrix to make sure all the Antennas and Radio ports, AISG/RET were connected as assigned in port matrix
- Looking at the Close-out pictures, to determine if antennas were installed correctly with respect to centerline, azimuth, EDT, MDT and Antenna model number.
- Also making sure weather proofing were done correctly on all the antennas, TMA, RRUs and diplexer.
- Attended daily calls and provided the status of each COP

Senior RF Engineer

Verizon Wireless/RYRAMIDCI - Chicago, IL

September 2013 to June 2016

Key task:

- Regulatory Filing for New and existing sites.
- Providing Spectrum info (LTE/AWS/PCS/Cel) to RE and zoning department.
- Setup ERP value per transmitter and updated Geo Plan/Atoll for PCS, CDMA, LTE, AWS and PCS-LTE
- Attended weekly calls and provided updates for New Build sites for ILWI market.
- Creating RFDS and reviewing ECR for New and existing Sites using MS VISIO.
- Provided suggestions to RF Engineers to add, remove or modify any equipment for the ECR.
- PIM and Sweep review
- Reviewed PIM values
- Provided feedback if passing or failing to RF engineer
- Reviewed RL for Sweep
- Used Sweep calculator to make sure sweeps were showing correct threshold for sweep review.
- In case of any issues in sweep or PIM review, alerted RF market engineers.
- CD review
- Checked the coordinate verses address on first page of CD.
- Matched the address from CD with RFDS (ECR) to make sure site will be built on correct address.
- Checked the Azimuth of each sector on CD and comparing it with RFDS.
- Checked CL on tower verses what was in RFDS
- Close out Package (COP) review.
- Making Sure PIM and Sweeps were passing.
- Looking at final close out pictures and checking;
 1. Antenna Model number & number of total antennas per sector
 2. Centerline of each sector
 3. Azimuth of each sector
 4. RRUS
 5. Tape drop
- Running Propagation Model for New Build Sites in Geo Plan,
- Requesting Pre & Post EME study for RT and WT sites from three different companies.
- Running Airspace and AM station check.
- Checking FAA and ASR for existing and new towers.
- Ran Airspace to verify if any new proposed tower with cause any issue with nearby airport or air traffic pattern.
- Communicating with RE for issues and updates on daily basis.
- Building existing/new equipment database in Siterra.
- Created Spectrum Map and plot the Map on county level of Verizon Wireless (it was not done before for market/region level).
- Used Atoll as new tool replacing Geo Plan & Atoll for site location, propagation, antenna selection.

Senior Design & Planning Engineer

T-Mobile (Regional Office)

September 2011 to April 2013

Key task: Scrambling Code planning (UMTS), Frequency Planning (GSM), roaming over build (ROB), AFP process. Communication with different Markets for updates with respect to retune/carve out completion, Updated National tracker. Evaluated Churn and provided feedback.

- Provided the SC for seventeen markets
- Worked on ROB project for different markets
- Looked at the cost of roaming per LAC and provided feedback to manager.
- Analyzed 2G Roaming and performed analysis for feasibility to continue roaming, split LAC or restrict roaming.
- Shut down roaming LACs in several markets and saved Millions of roaming cost (monthly).
- Evaluated UMTS roaming, request for UMTS roaming to lower the cost.
- Worked on AFP for 2G sites.
- Normalized the IM
- Used Asset, T-PIM data for IM
- Used Map Info to Plot PCS spectrum per county and decided what block to carve for UMTS sites.
- Got four performance Stars from different market managers/Engineers on providing the required information in timely manner.

LTE Design Engineer

Verizon Wireless, Ericsson - Sacramento, CA

January 2011 to September 2011

- Took charge of regulatory filings.
- Exported hundreds of sites for RFDS, and for integration project of CDMA sites with PCS and LTE.
- Ran Prediction for different candidates provided by site acquisition in a search ring.
- Finalized the primary and secondary candidates.
- Worked on LTE2, LTE3 and LTE4 deployment in Sacramento, CA/Nevada market.
- Decided the right dual band, dual pole antenna for each site from a list of antennas.
- Decided the number, size and length of main cable.
- Requested the correct number of diplexers for each site depending on the number of antennas.
- Compared Geoplan vs VZreg, made correction in Geo or/and sent 1-A doc. to GA.
- Created Contour and shape file for Minor Mod & for Full packages.
- Made sure all the regulatory files were submitted to Alpharetta, GA with 100% accuracy.
- Checked FAA and FCC site for precision of structure location
- Made sure no missing data or wrong information was submitted to GA.
- Used SiteSafe to check AM station and send study request in case of AM tower presence.
- Kept a copy of all the work in share drive in separate folders
- Worked with RF engineers to evaluate the urgency and priorities of different projects
- Consolidated CDMA sites with PCS and LTE
- Worked on Geoplan to export hundreds of sites for RFDS form
- Used Network Flow (program) to enter the consolidated site's info and attached required forms
- Researched, scanned and organized 1-A study forms for MM or FP filings.

WiMax Project Manager

Clearwire - Columbus, OH

September 2010 to December 2010

- Responsible for overall direction and speed of the project.
- Assigned daily and weekly projects to Drivers for clusters.
- Created, planned and executed every aspect of the cluster related responsibilities.
- Created, updated and distributed the daily tracker for the market.
- Communicated with RF engineers for any issues.

- Used X-stream to add each cluster sites, uploaded Bin files, generated reports, downloaded reports, presented to market manager.
- Used Clear Vision to generate report for the on-air and build sites.
- Used Wind catcher to process and analyze the drive, drops and issues.
- Made sure all the KPIs were met the standards of Clearwire.
- Automated to receive the daily "RF Config" sheet at the end of each day (around 8:00 p.m) to get the daily network update
- Processed the cluster drive files and ran the report on X-Stream to see if clusters pass.
- Looked at the RSSI, CINR, Preamble, HO and neighbor relations between sectors.
- Found co-channel and co-preamble and informed RF to review and update.
- In case of overall cluster failure, communicated with RF and requested for re-drive after problem got fixed
- Made sure to deliver the results by deadlines.
- Got daily update on ATP site list from testers.
- Attended the weekly conference call and provided the update on project.
- Performed ATP and cluster drive as well to support and deliver on time.
- Provided the updates to Director and made certain decisions to be able to meet the timeline for deliverables.
- Communicated with clients for any holiday related time off for other employees from same contracting company.

2G/3G RF Engineer

T-Mobile, Nortel/Nokia Network - Oklahoma City, OK

June 2010 to September 2010

- Sent 3G report every morning to Oklahoma Managers and Engineers
- Checked KPI values for 3G NSN network daily and forwarding it to OK engineers
- Used NSN to change parameters.
- Looked at the pilot pollution.
- Taking care of all the Nortel Sites in Oklahoma City, Tulsa, OK and Wichita, KS
- Took care of Customer complaints daily
- Issued trouble tickets for bleeding sites
- Running CPT and changing parameters of certain sectors
- Used Optpcs to see the timing advance for each sectors of a site
- Checked UL, DL, Link Balance, RF drops, Misc. drops, traffic and TCH and SDCCH blocking.
- Used Asset to check site location.
- Used T-PIM for pulling daily KPI reports for 2G.
- Used Homer for TT, WO, and site TT and WO history.

RF Performance Engineer

AT&T, Nokia Network - Evansville, IN

May 2010 to June 2010

- Used Atoll to open IN market sites and Get current site info
- Worked on RFDS to integrate sites with 2G/3G.
- Used different excel sheets to get the information to populate the RFDS
- Used correct combining for each sector
- Worked with 800 freq. for 2G/3G and 1900 freq. for 2G/3G sites.
- Used quad pole antennas to facilitate 2G/3G with same number of main cable.

Lead RF Engineer

Verizon Wireless, Lucent Network - Harlingen, TX

March 2010 to May 2010

- Assigned sites for each engineer to test
- Checked the status of shakedown by communicating with engineers in field.
- Communicated with Ops manager to get Field tech on site for trouble shooting.
- Checked for daily updates from field Ops manager for new site list.
- Site integration, trouble shooting to blossom the sites.
- Performed call processing testing, PN validation, basic hand off testing, and PSAP testing.
- Escalated with NOC to resolve any problem with PSAP and opened TT if needed.
- CDMA/EVDO data collection and Analysis.
- Checked the through put of download, uplink, HTTP and Ping rate
- Used air-card for data through put for UL and DL
- Checked voice call Ec/Io, TX power, Receive power, Active set, candidate list, etc.
- Shake down the new blossomed sites
- Used DataPro with PCTel for reuse of frequency by different service provider.
- Used Wind catcher for data analysis.
- Used QPST software to write different PRLs on test phone and on data card to test 800, 850, 900 MHz network.

RF Performance Engineer

Nortel Network, GSM\T-Mobile - Chicago, IL

August 2008 to November 2009

- Produced the desired results by bringing the MOU and NAF to required level for assigned clusters.
- Connected daily to OMCR and checked radio and T1 status
- Responsible (coordinator) for creating DCRI TTS for bleeding sites in first and second shift (was flexible to work any shift)
- Checked T1 through TELNET for high miscellaneous drops to make sure no PCM was bouncing.
- Shakedown of new UMTS sites
- Checked UMTS site's functionality after the launch of Rockford city in 3rd shift for over 25 sites.
- Checked KPI of each cluster to see the performance.
- Have clear understanding of UMTS Essentials, HSDPA's function Node B and RNC.
- Monitored the UMTS stats after it's launched in September 2008.
- Carefully monitored RNCs and IRAT HO
- Good understanding of Layer 3 messaging.
- Able to make recommendations in parameter changes, feature activations on drive test data to improve the system performance. .
- Performed the daily tasks of checking Daily Drops, MOU and TCH reports, neighbor handover relation reports from XPM.
- Communicated with FOPs to trouble shoot sites for any immediate issue or need.
- Checked hourly reports for worst droppers and took appropriate action, including opening the trouble ticket for FOP, locked the radios in case of increase in drops.
- Ran (CPT) tool to diagnose and troubleshoot sites.

- Checked the performance of high blocking sectors and requested to add radios to eliminate the busy hour blocking and did the data-filled.

- Open WOs to increase and decrease DT after running the CPT and checking

Timing advance.

- On special events, such as downtown games, inauguration speech, made sure enough radios were data-filled to prevent blocking

- Issued trouble tickets\Work orders using Homer when needed for any problem site.

- AIMS Ticket (Customer Complaint Tickets)

- Used Insite for site verification, antennas and azimuth.

- Used Asset for prediction, neighbor adds and site location.

- Processed the drive test (collected using X-Tel), and opened the processed files in Actix to see drops, handover failure, best server and foot print of each sector in a cluster.

- Prepared power point and presented to T-Mobile managers

- Have done in building walk and solutions (IPBTS)

- Also used Magnum KPI, DCRI and MAC hourly tools for site performance.

- Other program Used: MapInfo, Streets & Trips 2008, MS office, Outlook.

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Lead Design Engineer

Nortel Network, GSM\T-Mobile - Austin, TX

May 2008 to August 2008

- Issuing/moving search rings for Austin, San Antonio and Waco.

- Performed Site Walk, A&E

- Checked for Final FAA and AM clearance

- Evaluated different candidates provided by site acquisition in a search ring by running prediction on each candidate using Asset.

- Selected a candidate as primary on basis of which candidate covering the area best.

- Requested SCIP for primary candidate.

- Sent certified letters to the owners of Airport/Helipad for building a new tower if it falls within three nautical miles of Airport/Helipad.

- Ran Script (for frequencies & neighbors) in OMC (Nortel equipment) for new sites.

- Ran commands in Telnet so all the changes get synchronized and the latest site information can be downloaded from OMC through OMC Audit macro.

- Ran CPT to check the performance of each Trx after new site came on-air.

- Used Metrica for HO evaluation report, TCH Traffic Report for new site and its neighbors, CPT reports for all sectors of new site. Used Insite, Homer, and Asset to get new site's information and saved/attached the required files.

- Used XPM for site performance as well

- Checked the BSC/site performance by checking the Health Index through Metrica.

- Worked on new site optimization process to ensure the successful integration of new sites. It included in-depth neighbor analysis, frequency verification, parameter audit, drive test analysis, and down tilt optimization.

- Performed 3G/WCDMA site audits to verify the present GSM configuration on existing/new sites and checked the feasibility to implement UMTS.

Senior Performance Engineer

Motorola Network - New York, NY

June 2006 to April 2008

- Optimization and Performance responsibilities included but not limited to;
- Brought down the drop rate from 1.54% to 0.98% in West Bronx, NY
- Resolved Trouble Ticket
- Helped other RF Engineers with their issues and provided them support and recommendations.
- Checked problem sites, communicated with FTE through phone and email.
- Checking power and combining of each BR (radio) in a sector.
- Data filled for new sites and BR adds for existing sites.
- Used Planet EV for running prediction and changing azimuth.
- Looked into possible interference and made changes.
- Added neighbors to reduce drops and deleted neighbors of sites with low or no hand off.
- Performed site audits and made changes, when needed.
- Performing daily tasks of checking top 100 carrier, neighbor and non RF drops.
- Program used: Actix, Agilent, MapInfo, Scotty, and Wild Cat.
- Web based program used: Site Dev & Engineering, Achieve Browser, Get power, Frequency finder, and Scotty web based.
- Coordinate with engineers in the field for wimax upgrade
- Monitored the sites for any increase in drops after consolidation of CDMA and iDen for wimax implementation.
- Visited sites after the wimax antennas were installed to make sure cables and other antenna not effected in anyway.

Design / Performance Engineer

Nortel Network - Parsippany, NJ

April 2005 to May 2006

- Build sites in Asset, ran prediction for 2G and 3G (UMTS) sites (new and existing sites) to see coverage and footprint.
- Consolidation GSM sites with UMTS sites
- Provided recommendations for UMTS sites.
- Made changes to 2G sites, removed one 2G antenna to include one UMTS antenna in each sector.
- Performed site Survey to 2G sites to consolidate it with UMTS sites.
- Used InSite for site and search ring information and updated incase of any new development like candidate approval or rejection.
- Updated information in Asset such as antenna type, EDT, MDT, Lat Long, etc
- Checked stats of daily Drops, MOU and TCH retorts.
- Checked hourly reports for worst droppers and took appropriate action.
- Used Call Path Trace (CPT) tool to diagnose and troubleshoot site performance and hardware issues.
- Checked MISC drops to make sure T1 were ok and PCM were ok as well.
- Took care of BCCH, TCH interference by checking the footprint of each sector of a site and made changes if necessary.
- Worked with Field Operators to trouble shoot Nortel Equipment / BTS affecting On Air sites and network.
- Issued trouble tickets using Remedy and opened work orders in Homer when needed for any issue related to a site.
- Took care of customer's complaint in AIMS (program), made calls to customers to improve the quality of service by finding out the nature of the problem.
- Performed Tech-walk, A&E, Q&A
- Attended zoning hearing in New York.
- Shakedown for new sites

- Created 150 plus search rings for 2006 in Insite (for Capacity and Infill)
- Used Remedy to see the assigned work, attached data-fill, neighbor list to newly built sites and added the Inventory after the site came on air.
- On regular basis checked the states of new and existing sites on Metrica
- Used MapInfo and OPTPCS for site locations, Drive test data processing and display.
- Visited pole locations in Manhattan, Brooklyn and Bronx for DOITT project.
- Helped to create 298 search rings for DOITT project and created a database.
- Introduced the aerial view (satellite pictures) to T-Mobile for New York area.

Performance Engineer

Verizon - Chicago, IL

February 2005 to March 2005

- Testing 1xRTT, EVDO networks using DataPro (Verizon Proprietary) both in HDR/HYBRID modes for Throughput verification for UL/DL, Handoffs, Received power, Ping failures, PN's and other Radio link statistics.
- Process the drive test data using ACTIX Analyzer and produce EVDO Cluster Acceptance reports, plots of performance both on cluster level and sector level analyzing PER, Throughput, Ec/Io, and other KPI's.
- Also used PlanetEV to see the coverage area of each sector.
- Analyzed the drive test data for Poor coverage, Pilot Pollution using Agilent EVDO Receiver and Scanner

RF Engineer

May 2004 - Jan 2005

Verizon Wireless

Seattle, WA, AZ, SC, KS

- Site surveys
- Making 400 calls from a random point generated by a website (RANDOM.ORG).
- Functionality test
- Communicated with Translation and TCS to make sure that sites were working properly and there were good fixes with of GPS and Non-GPS phones.
- Intensive troubleshooting and performance analysis.

RF Optimization Engineer

Cingular - Ohio

April 2004 to May 2004

- Baseline drive using X-Tel Communication.
- GPRS Data performance.
- Scanning AT&T 850 MHz.

RF Optimization Engineer

Nortel & Western Wireless

February 2004 to March 2004

- GPRS Testing in Youngstown (OH), Cambridge (OH), Jamestown (NY), and Morgantown (WV)
- Performed GPRS test for Omni/Sector sites using TEMS 4.0.
- Troubleshooting sites with high drop calls and performed cluster drive.

RF Engineer

Nokia Network AT&T GSM Network (1000 sites) - California

January 2003 to January 2004

- Analyzing drive-data using Net Optimizer tool.
- Recommended changes to reduce drop calls, blocking and interference.
- Used Map info for post processing of files and preparing client's deliverables.
- Baseline drive test for GSM network with two and three phone configuration. One for Scanning and the other for short\long call.
- Creating and adding layers using MapInfo. Net-Optimizer program, for better understanding of the system by analyzing more information.
- Tested hotspot areas and provided the workspace/plot/JPG to client as needed.
- Performed all aspects of SCFT.
- Performed AMR testing

RF Engineer

CDMA-Nortel - Verizon Texas

October 2002 to November 2002

- Worked on Snapper Program for E911 testing.
- Supported Texas, Florida, Los Angeles and Tennessee markets using Snapper for calibration and accuracy test.
- Led the engineers in field for fixes and communicated both the engineers in the field and the coordinator in Texas area for any problem including no fixes, source being different than GPS, different frequency and PNs.

Optimization/performance Engineer

Nortel, Verizon- CDMA network (540 sites) - Georgia

March 2002 to October 2002

- Performed shake down for CDMA blossomed sites
- Prepared the route map in advance for shake down and visited sites before the Cut night.
- Performed shake down for sites with up to 4-carriers F1(Ch 283), 2-carrier F2(CH 241), 3-carrier F3(CH 199), and 4-carrier F4(Ch 157).
- Used DATA-PRO Software for data collection
- Intensive performance troubleshooting
- Performed baseline and acceptance test
- IVHHO expert (Client's remarks).
- Analysis neighbor list candidates, Tx, Rx, Ec/Io and other factors to solve the problem.

Network Performance Optimization

Nextel - South Dakota

July 2001 to November 2001

- Frequency Planning.
- Network performance optimization.
- Tested IDEN wireless system for Nextel Partner's Inc. Sioux Falls in South Dakota.
- Created site database file (CD2) for South Dakota market and update it.
- Drive Test analysis using (Agilent technologies) Walkabout Software and Hardware.
- Processed the Drive Test files using OPAS Software, created layers for

RSSI, SQE, drop calls, no service etc.

- Performed SFT (site functionality test) and created SFT form.
- Visited cell sites candidates and evaluated.
- Checked interference and perform frequency changes needed.
- Produced maps using Street Atlas for Zoning, presentations and etc.
- Collected drive test data for approval of submitted candidates, and for scanning of all analog channels using Walkabout. And evaluated the drive test for Site acceptance.
- Involved in FCC filing for Sioux Falls market.
- Created and sent the site Matrix for South Dakota Market.
- Updated the Access Database for all the status and the data of all the candidates and search ring.

Performance/Optimization

Nextel - Springfield, IL

March 2000 to June 2001

- Tested the IDEN wireless system for Nextel Partner's Inc., Cedar Rapids in Iowa and Bloomington in Illinois.
- Date collection using Safco Walkabout Software and Hardware and OPAS32 Software, created layers for RSSI, SQE and drop calls etc.
- Processing drive test files through OPAS.
- Analyzed drive test data with SPEs to fix if there was any problem.
- Created and edited RF bills specification.

RF Engineer

Education

Master of Management Information System in Management Information System

Friends University Graduate School - Wichita, KS

Skills

- RF design and Propagation tools used
- GeoPlan
- Atoll
- Planet EV (RF design and Propagation tool)
- Asset (RF design and Propagation tool) Analysis and drive test tools used
- Map-info. (Expert level)
- TEMS Investigation GSM 5.1.2
- Data Pro (data collection Program for CDMA and PCS)
- (Agilent and Safco) Walkabout 9.3 and Safco OPAS32
- Actix
- Optpcs
- Net Optimizer

- FAA/FCC Filing
- SiteSafe (AM station search)
- Spectrum Analyzer (IFTA) with Yagi Antenna.
- X-Tel Communication
- GPS Monitor (GPSMON)
- In-Site (Site info)
- Homer (Work Orders)
- AIMS (Customer Complains)
- XPM (KPI, Cell HO report, Site performance, cluster performance)
- Metrica (Daily/Weekly/Monthly Reports)
- Search rings, Interference analysis
- Drive testing
- Analyzing data
- Snapper
- Preparing search rings
- Issuing Site Build Forms