DACUM Research Chart for
Broadband Technician

DACUM Panel

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Duties ——— **Task**

A — Install/ Change Services

Maintain truck inventory A1	Communicate with customer A2	Communicate with co-workers A3	Travel to & from job A4	Use PPE A5	Comply with codes and standards A6	Promote new services A7	Collect payment A8	Identify correct cable plant A9	Climb the pole/hand the ladde
Determine home signal distribution A21	Install house amplifier A22	Perform outlet installation A23	Install wiring conduit A24	Install phone lines A25	Install modems A26	Install high-speed services A27	Install converters A28	Connect A/V equipment A29	

B — Disconnect Services

Maintain truck inventory B1	Travel to & from job B2	Communicate with customer B3	Perform marketing activities B4	Collect payment B5	Retrieve equipment B6	Use PPE B7	Climb the pole/handle the ladder B8	Locate customer drop B9	D th

C — Trouble-shoot/Repair Problems

Maintain truck inventory C1	Communicate with customer C2	Communicate with co-workers C3	Travel to & from job C4	Observe symptoms C5	Use PPE C6	Comply with codes and standards C7	Verify billing system accuracy C8	Identify correct cable plant components C9	
Balance forward & reverse signal C20	Perform PM C21	Perform tap audit C22	Maintain plant security C23	Bond to common ground C24	Perform cable locate C25	Install auxiliary power supplies C26	Verify PC network configuration C27	Conn A/V e ment	

D — Perform Preventive Maintenance

Maintain vehicle D1	Maintain truck inventory D2	Maintain test equipment D3	Travel to & from job D4	Use PPE D5	Climb the pole/ handle the ladder D6	Monitor system leakage D7	Communicate with customer D8	Communicate with co-workers D9	Rep leak
Maintain weather-proofing D16	Replace plant equipment D17	Repair lashing wire D18	Perform cable locate D19	Maintain power supplies D20	Complete documentation D21	Complete FCC documentation D22			

E — Communicate With Customer

Obtain easement permissions E1	Explain easement rights E2	Sell new services E3	Participate in marketing campaigns E4	Review installation procedures E5	Explain customer equipment integration E6	Demonstrate company equipment E7	Explain services E8	Expl rate fees

F — Maintain Vehicle

Maintain licenses & permits F1	Drive defensively F2	Maintain mechanical operation F3	Maintain PPE F4	Maintain safety equipment F5	Maintain safety supplies F6	Comply with vehicle marker guidelines F7	Maintain consumables inventory F8	Maintain tools F9	M te m

G — Perform Plant Construction

Maintain truck inventory G1	Travel to & from job G2	Use PPE G3	Refer to strand map G4	Communicate with customers G5	Coordinate with other utilities G6	Trim trees G7	Install anchors G8	Install strand hardware G9	Comply with codes & standards G10	Perform trenchin & boring G1
Check for signal leakage G24	Verify end-of-lines G25	Perform drop transfer G26	Maintain documentation G27							

H — Pursue Professional Development

Learn defensive driving skills H1	Obtain climbing certification H2	Acquire knowledge of HAZMAT procedures H3	Acquire knowledge of codes & standards H4	Develop safe work habits H5	Maintain professional conduct H6	Participate in OJT H7	Participate in cross-training H8

Occupation Description: Individual will be able to install, troubleshoot and repair cable equipment and services, perform preventive maintenance, and gather and evaluate systems performance data. Must have strong skills in electronics, radio frequency and digital modulation, and mechanical aptitude. Excellent communication skills and experience with computer operating hardware and software required. Should also demonstrate understanding of system architecture, basic cable plant design, and be climbing certified.

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dle r A10	Run drop tap to customer premises A11	Perform drop cable connectorization A12	Install traps A13	Maintain plant security A14	Perform tap audit A15	Check for signal leakage A16	Perform PM A17	Identify cable outlets A18	Install closure box A19	Bond to common ground A20

Integrate other customer equipment A30	Install satellite dish A31	Verify correct customer services A32	Verify system performance A33	Complete documentation A34

isconnect e drop B10	Remove traps B11	Terminate tap port B12	Weather-proof the drop B13	Perform tap audit B14	Maintain plant security B15	Check for signal leakage B16	Recycle traps B17	Complete documentation B18

Use test equipment C10	Climb the pole/handle the ladder C11	Verify as-built system design C12	Appraise system performance C13	Verify fiber optic performance C14	Identify problem C15	Isolate the problem C16	Replace equipment C17	Repair equipment C18	Perform trunk/ feeder connectorization C19

ect quip- C28	Integrate other customer equipment C29	Complete documentation C30

air age D10	Monitor ingress D11	Verify fiber optic performance D12	Sweep & balance cable plant D13	Appraise system performance D14	Verify end-of-line performance D15

ain & E9	Provide legal franchise information E10	Review provider P & Ps E11	Collect payment E12	Leave promotional information E13	Complete documentation E14	Provide contact information E15	Leave door tags E16	Follow up with customer E17

aintain st equip- ent F10	Maintain equipment security F11	Maintain vehicle cleanliness F12	Maintain documentation F13

Install conduit G12	Set pedestals G13	Drive ground rods G14	Bond to common ground G15	Pull cable G16	Lash cable G17	Dress up cable G18	Cut in active and passive equipment G19	Install power supplies G20	Activate new equipment G21	Verify fiber optic performance G22	Sweep & balance equipment G23

Attend vendor training H9	Attend in-house training H10	Engage in competency testing H11	Develop interpersonal skills H12	Develop sales skills H13	Develop customer retention skills H14	Maintain SCTE membership H15	Attend trade shows H16	Attend professional meetings H17	Read trade journals H18	Participate in continuing education H19	Pursue additional formal education H20

General Knowledge and Skills

Working knowledge of:
- Electrical systems (AC/DC)
- Electronics
- Digital & analog modulation
- Mechanical systems
- Programmable logic controllers (PLCs)
- Safety standards (OSHA)
- FCC codes & standards
- Frequency allocation
- RFI propagation & identification
- Ladder and climbing safety

Able to use equipment manuals
Able to operate test equipment
Read maps & schematics
Read wiring diagrams
Proficient with power tools and hand tools
Able to identify cable types
Math skills, esp. algebra, geometry
Computer skills
Problem solving skills
High school education or GED
Able to read at high school level
Operate heavy equipment
Install conduit
Time management skills
Written/verbal communication skills
Customer relations

Worker Traits and Behaviors

Customer oriented
Self-motivated
Creative thinker
Efficient
Dependable
Resourceful
Attentive
Quick learner
Sense of humor
Able to work with heights
Able to work around animals
Able to work in uncomfortable spaces or environmental extremes
Ability to continue learning
Leadership skills
Commitment to quality work
Able to work flexible hours
Positive attitude
Professional appearance
Physical fitness
Able to lift 75 pounds
Work independently
Able to pass drug and alcohol testing
Current, valid Texas driver's license
Team worker

Tools, Equipment, Supplies and Materials

Testing equipment, including:
- Metallic time domain reflectometer (MTDR)
- Optical time domain reflectometer (OTDR)
- TV test set
- Forward & reverse signal level meter
- Spectrum analyzer
- Digital modulation analyzer
- Oscilloscope
- Ammeter

Leakage detection equipment
Laptop computer
Safety equipment (personal and job safety)
Gas and cordless power drills
Grounding equipment
High voltage/high power test equipment
Cable system maps
Electrical/electronic test equipment
Electrical supplies
Construction pullers
Batteries
Cable reel handling equipment
Lasher
Coring tools
Fiber optic cable splicing equipment
Work vehicles
Barricade materials
Waste cleanup materials
Schematics, wiring diagrams
Equipment manufacturers' manuals
Various permits
Guarding equipment
Lighting equipment

Acronyms and Terms

PM - Preventive maintenance
PPE - Personal Protective Equipment
P & P - Policy and procedures
NEC - National Electric Codes
FCC - Federal Communications Commission
HAZMAT - Hazardous materials
OSHA - Occupational Safety & Health Administration
NCTI - National Cable Telecommunications Institute
EPA - Environmental Protection Agency
OJT - On-the-job training
SCTE - Society of Cable Telecommunication Engineers
RFI - Radio frequency interference

Future Trends/Concerns

Deregulation of utilities
Shortage of qualified workers
Increased environmental regulation
Networking
Cost of energy, raw materials
Increases in workload, training standards
Keeping up with hardware, software upgrades
Increasing costs of tools
Additional license/certification testing