

**STATE OF OHIO (DAS)
CLASSIFICATION
SPECIFICATION**

<u>CLASSIFICATION SERIES:</u> Telecommunications Systems Analyst	<u>SERIES NO.:</u> 6711
<u>MAJOR AGENCIES:</u> Administrative Services, Bureau Of Workers' Compensation, Lottery Commission & Taxation Only	<u>EFFECTIVE DATE:</u> 04/22/2012

SERIES PURPOSE:

The purpose of the telecommunications systems analyst occupation is to design, engineer & plan telecommunications networks & links.

At the lower level, incumbents design, engineer & plan telecommunications facilities for the SONIC network.

At the higher level, incumbents act as supervisors over lower-level telecommunications systems analysts &/or computer consultant 1s.

The telecommunications systems analyst series differs from the systems analyst series in that telecommunications analysts design, engineer & plan telecommunications networks & links that transmit voice & data on the sonic network while system analysts analyze & design computer/data processing systems.

GLOSSARY

The items listed below will be used throughout the classification specification and are defined to mean the following:

SONIC: State of Ohio network for integrated communications which is a telecommunications network comprised of multiple computers, terminals & telecommunications hardware & software used by many state agencies & universities. The network allows agencies at different locations throughout the state to interact with one another or tie into a main computer.

Small to Mid-Range Telecommunications Facilities: 1 to 50 single or group of lines for agency within central location or 1 to 50 lines located in remote sites throughout Ohio.

Large &/or Complex Telecommunication Facilities: Includes agencies installing multiple terminals at multiple remote sites throughout the state to transmit information to an Ohio data network or other mainframe computer; installation of redundant telecommunication facilities; installation of telecommunication facilities where existing lines are in use & must be cut over to different telecommunications access units; migrating existing lines in use to other facilities to reduce costs & other projects that involve a variety of telecommunications technologies for voice & data (i.e., 50 or more single lines or 50 or more groups of lines).

Designs & Engineers: Reviews existing sonic & other network line & equipment available to be used from one designation to another.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>PAY RANGE</u>	<u>EFFECTIVE</u>
Telecommunications Systems Analyst 1	67111	33	01/19/1997

CLASS CONCEPT:

The developmental level class works under immediate supervision & requires working knowledge of telecommunications & telecommunications systems analysis in order to design & engineer small to mid range telecommunications facilities with assistance from higher-level communications systems analysts at least 50% of time.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>PAY RANGE</u>	<u>EFFECTIVE</u>
Telecommunications Systems Analyst Supervisor	67115	16	11/25/2007

CLASS CONCEPT:

The supervisory level class works under general direction & requires thorough knowledge of telecommunications & telecommunications systems analysis in order to supervise lower-level telecommunications systems analysts in designing, engineering & planning full range of telecommunications facilities for sonic telecommunications network & handle all personnel issues & administrative & budgetary activities for SONIC section, or to plan & direct network design for Ohio lottery commission network, develop, implement & maintain standards for optimum network performance & supervise telecommunications systems analysts to oversee installation, testing &/or repair of statewide voice, data & video telecommunications equipment, or to direct collection of agency voice, data & video network requirements & oversee analysis of results, develop network procurement specifications, direct procurement process & manage resulting suppliers

who provide outsourced telecommunication services for state of Ohio telecommunications network used by all state agencies & supervise computer consultant 1s.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Telecommunications Systems Analyst 1	67111	14	01/19/1997	33

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Reviews telecommunication service requests & orders with requested timeframes, verifies validity of telecommunications technical information (e.g., appropriate telecommunications technology is requested; appropriate telecommunications equipment is in place to run line; correct circuit numbers are identified; information on request is valid so circuit installed will test & run successfully), designs & engineers small to mid-range telecommunications facilities for line(s) that meet request's requirements & are cost effective & identifies alternate line(s) route for redundancy & allocates telecommunication resources (e.g., identifies specific circuit numbers linking line(s) to digital access cross connect switches or ensures & makes provision for telecommunications equipment required at each site) needed to complete job, configures local area network interconnection routers, projects timeframes for each phase & issues written work orders explaining detailed technical telecommunications instructions of job specifications to telephone companies & private carriers with assistance from higher-level telecommunications systems analyst.

Schedules vendors' & telephone companies' telecommunications installation timeframes & coordinates installation, acceptance testing & turn-up completing new or revised telecommunications link; installs, implements, maintains & backups telecommunications networking database systems used by sonic staff; installs, implements, maintains & troubleshoots sonic system software (e.g., multi-vendor analysis systems, trouble ticketing system & automated test system).

Acts as technical liaison to resolve any technical telecommunications issues related to installation; trains supervisory & lead staff on new line installation information or telecommunications hardware & software as needed; interacts with telecommunications technical staff in telephone companies & private carriers as needed on larger or complex service requests to determine preliminary telecommunication resources available &/or required; documents related information as needed; learns to design & engineer large &/or complex telecommunication facilities (e.g., is assigned to complete one or two parts of total project; assists higher-level telecommunications systems analyst by interacting with telephone company to determine what lines & telecommunications facilities would be needed in specific area if there are more than one geographical locations included, to determine what equipment is needed at each local access transport area, to identify telecommunications equipment to be purchased & to establish procedure used to cut over existing telecommunication lines).

MAJOR WORKER CHARACTERISTICS:

Knowledge of telecommunications & computer systems analysis & design, network control operations & multiple telecommunications networking operating system/procedures; computer science or telecommunications; employee training & development*. Skill in operation of computer terminal & computer telecommunications equipment (e.g., IBM pc compatibles, modems, multiplexers, digital access cross connect switch & other state-of-art networking equipment), use of diagnostic software to design telecommunications networks & use of graphic software to create complex reports. Ability to deal with many variables & determine specific action to be taken; communicate verbally or in writing on complex technical & non-technical matters; interpret variety of technical manuals & instructions; gather, collate & classify information.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Completion of undergraduate core coursework in computer science or electronic engineering; 3 yrs. trg. or 3 yrs. exp. in telecommunications operations involving use of multiple telecommunications computer equipment (e.g., IBM pc compatibles, IBM series I, modems, multiplexers, digital access cross connect switch routes & other state-of-art networking equipment) or 3 yrs. trg. or 3 yrs. exp. in telecommunication circuit design & project implementation (e.g., network engineer with common carrier).

-Or completion of associate core coursework in computer science or electronic engineering; 4 yrs. trg. or 4 yrs. exp. in telecommunications operations involving use of multiple telecommunications computer equipment (e.g., IBM pc compatibles, modems, multiplexers, digital access cross connect switch routers & other state-of-art networking equipment) or 4 yrs. trg. or 4 yrs. exp. in telecommunication circuit design & project implementation (e.g., network engineer with common carrier).

-Or 12 mos. exp. as Telecommunications Network Operator 3, 52483.

-Or 24 mos. exp. as Telecommunications Network Operator 2, 52482.

-Or equivalent of Minimum Class Qualifications for Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

Not applicable.

UNUSUAL WORKING CONDITIONS:

May be exposed to continuous loud noise; may work evening or night shift; may work weekends or holidays; may be on-call 24 hrs./day, 7 days/week; works as essential employee; must submit to & pass Ohio State Highway Patrol personal background check; must sign & agree to Ohio State Highway Patrol applicant release form & Ohio State Highway Patrol security clearance release form; must sign & agree to Department of Administrative Services' Division of Computer Services' code of responsibility for security and confidentiality of data files & safeguarding of state assets.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Telecommunications Systems Analyst Supervisor	67115	EX	11/25/2007	16

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Supervises telecommunications systems analysts, handles all personnel issues & administrative & budgetary activities (e.g., fiscal year projected budgetary needs; annual expenditures; section purchasing authority) for SONIC section & directs activities of section related to sonic network & projects (e.g., identifies alternate ways to implement telecommunications projects; identifies costs, technical requirements, telecommunications resources available & those to be obtained);

OR

Plans & directs network design for Ohio Lottery Commission network, develops, implements & maintains standards for optimum network performance, participates in long range planning & budget preparation, supervises telecommunications systems analysts to oversee installation, testing &/or repair of statewide voice, data & video telecommunications equipment & creates & implements training for employees;

OR

Directs collection of agency voice, data & video network requirements & oversees analysis of results, develops network procurement specifications, directs procurement process & manages resulting suppliers who provide outsourced telecommunications services for state of Ohio telecommunications network used by all state agencies & supervises computer consultant 1s engaged in collecting, analyzing, designing & evaluating services being provided by contractors.

Plans & provides overall engineering expertise on major &/or complex sonic telecommunications projects; does performance planning & evaluation (e.g., establishes & evaluates test telecommunication links between IBM mainframe & remote site & downloads & uploads data to & from locations to determine optimum speed & maintain highest level of data integrity) for data transmitted between various computer front ends to terminal destination across telecommunications network testing line speeds, routes & other electrical & technical telecommunications engineering related activities (e.g., data integrity after transmission; ensures conformance to published electrical specifications for noise level, frequency, bit error rate & retransmissions); participates & directs key aspects of das network services to agencies (e.g., needs analysis; cost of alternatives; auditing of bills from suppliers); researches industry trends; designs new, complex communication systems for users; pursues financial credits from suppliers on behalf of agencies & internal DAS' telecommunication sections; analyzes, evaluates & determines most cost effective & efficient state telecommunications network alternatives, interprets government tariffs & contacts imposed on state telecommunications network activities to determine physical & cost impact & negotiates government tariff & contract provisions with legal staff support.

Reads & prepares detailed technical reports related to section activities & projects; establishes & maintains contact with users & agency officials & other computer services division staff; meets with vendors' telecommunications technical staff & company officials on regular basis to discuss & negotiate global & technical aspects of major outsourced telecommunications network projects.

MAJOR WORKER CHARACTERISTICS:

Knowledge of supervisory principles/techniques; telecommunications & computer systems analysis & design, network control operations & multiple telecommunications networking operating system/ procedures; computer science or telecommunications; employee training & development. Skill in operation of computer terminal & computer telecommunications equipment (e.g., IBM pc compatibles, IBM series I, modems, multiplexers, digital access cross connect switch & other state-of-art networking equipment), use of diagnostic software to design telecommunications networks & use of graphic software to create complex reports. Ability to deal with many variables & determine specific action to be taken; communicate verbally or in writing on complex technical & non-technical matters; interpret variety of technical manuals & instructions; gather, collate & classify information; establish friendly atmosphere as supervisor.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Completion of undergraduate core coursework in computer science or electronic engineering; 6 yrs. trg. or 6 yrs. exp. in telecommunications operations involving use of multiple telecommunications computer equipment (e.g., IBM pc compatibles, IBM series I, modems, multiplexers, digital access cross connect switch routers & other state-of-art networking equipment) or 6 yrs. trg. or 6 yrs. exp. in telecommunication circuit design & project implementation (e.g., network engineer with common carrier); 12 mos. exp. in providing work direction & training to other employees or 12 mos. trg. or 12 mos. exp. in supervisory principles/techniques.

-Or completion of associate core coursework in computer science or electronic engineering; 7 yrs. trg. or 7 yrs. exp. in telecommunications operations involving use of multiple telecommunications computer equipment (e.g., IBM pc compatibles, modems, multiplexers, digital access cross connect switch routes & other state-of-art networking equipment) or 7 yrs. trg. or 7 yrs. exp. in telecommunication circuit design & project implementation (e.g., network engineer with common carrier); 12 mos. exp. in providing work direction & training to other employees or 12 mos. trg. or 12 mos. exp. in supervisory principles/techniques.

-Or 12 mos. exp. as Computer Consultant 1, 64161.

-Or 12 mos. exp. as Telecommunications Systems Analyst 3, 67113; 12 mos. exp. in providing work direction & training to other employees or 12 mos. trg. or 12 mos. exp. in supervisory principles/techniques.

-Or 24 mos. exp. as Telecommunications Systems Analyst 2, 67112; 12 mos. exp. in providing work direction & training to other employees or 12 mos. trg. or 12 mos. exp. in supervisory principles/techniques.

-Or equivalent of Minimum Class Qualifications for Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

Not applicable.

UNUSUAL WORKING CONDITIONS:

May be exposed to continuous loud noise; may work evening or night shift; may work weekends or holidays; may be on-call 24 hrs./day, 7 days/week; works as essential employee; must submit to & pass Ohio State Highway Patrol personal background check; must sign & agree to Ohio State Highway Patrol applicant release form & Ohio State Highway Patrol security clearance release form; must sign & agree to Department of Administrative Services' Division of Computer Services' code of responsibility for security and confidentiality of data files & safeguarding of state assets.