

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory, Telephone Directory & Resale of Telecom Services

This Product Survey presents the major characteristics of telecommunications software systems marketed by manufacturers and distributors/dealers for general-purpose or specialized telecom management applications. The software is designed to run on industry-standard computer systems in a normal operating environment.

The most frequently used application is processing call detail recording (CDR) or station message detail recording (SMDR) records into various summary reports on overall telephone usage. A telecom manager can identify expenses by station, department, division, or total company. Specialized reports can pinpoint misused trunk lines, which indicate potential areas in which a rearrangement of facilities can save the company money. Excessively long phone calls, calls that cost more than a preassigned limit, calls to specific numbers, and calls to specific geographic areas can all be identified for subsequent action. Most all manufacturers provide some type of **call accounting** software product, in addition to specialized products.

Included among the growing cadre of specialized telecom management software systems are **traffic optimization**, which identifies how telephone trunk lines are being used; **network design**, which takes inputs developed from traffic optimization reports and computes the most efficient network layout, or topology, based on current tariff rates for specialized circuits; **hotel/motel resale and billing**, which takes input gathered from a hardware-based call accounting system and prices calls for each guest, with whatever profit factor the house desires; **multitenant**

resale, which takes call records generated by multiple users operating out of the same telephone system, and charges expenses back to individual tenants, often at a discount; **directory system**, which assembles all employee names and produces a corporate telephone directory as well as an interactive capability for rapid access to employee names and other information; **equipment inventory**, which keeps accurate records of all company telephone equipment and facilities; **cable and wiring record system**, which keeps a record of all cabling facilities and cross-connect terminals; **message center**, which provides an interactive messaging capability; and **maintenance recording and reporting system**, which keeps track of all repair and maintenance activities.

This edition of the Product Survey presents specifications and pricing on **69 software products marketed by 30 vendors**. Listings are arranged alphabetically by vendor name. Each product entry is further divided into 12 logical categories that define function, computers/operating systems supported, configuration, system parameters, system features, service bureau availability, date of first delivery, number of systems installed, average system cost, method of distribution, and installation/maintenance/training. If there are specific comments to make about the product, they are made immediately after installation/maintenance/training. Specific topic areas within each section are further identified with a solid dot (•). The Telecom Software Outline table below is a quick reference guide to vendors whose product parameters match specific user requirements. Outline parameters define the principal applications and features of telecom software systems.

TELECOM SOFTWARE OUTLINE

COMPANY	FUNCTION Call Accounting Traffic Optimization Network Design Hotel/Motel Resale Directory Equipment Inventory Cable Records Maintenance Reporting Financial Analysis Other	COMPUTER SUPPORT IBM/XT Compatible Mainframes Digital Equipment VAX Other Large Scale Computers	IBM Personal Computer AT&T Personal Computer Other Microcomputers	Batch Operation Interactive Operation	Service Bureau Available	PRICE RANGE - SOFTWARE LICENSE Under \$1,000 \$1,000 to \$5,000 \$5,000 to \$25,000 Over \$25,000
Account-A-Call	•••••	••	••	••	••	••
American Computer & Electronics	•••••	••	••	••	••	••
The Aries Group	•••••	••	••	••	••	••
BCR Enterprises	•••••	••	••	••	••	••
Benton, Schneider & Assoc	•••••	••	••	••	••	••

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	Call Accounting	Traffic Optimization	Network Design	Hotel/Motel Resale	Directory	Equipment Resale	Equipment Inventory	Maintenance	Records	Recording	Financial Analysis	Other	IBM/IBM-Compatible Mainframes	Digital Equipment VAX	Other Large-Scale Computers	IBM Personal Computer	AT&T Personal Computer	Other Microcomputers	Batch Operation	Interactive Operation	Service Bureau Available	
Commercial Software	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Communications Analysis	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Communications Design Corp	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Contel Information Systems	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CP National	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Creative Management Systems	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Digital Equipment Corporation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
The DMW Group	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
H/L Telcomm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HTL Telemanagement	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
The Info Group	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Marketing & Systems Development Corp	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MCS, Inc	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Micro-Tel, Inc	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Radionics, Inc	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Soft-Com, Inc	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Stonehouse & Company	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Synercom Technology	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Telco Research	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Telephone Budgeting Systems	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
United Technologies Telcom MIS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Winsource, Inc	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Wolf Data Services, Inc	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Xiox Corporation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

TELECOM SOFTWARE FEATURES

Function

This Feature Section denotes the principal application of the software product. Many of the software products listed are modular and support multiple functions.

Computers/Operating Systems

This Feature Section describes the type of computer system the software product is designed to run in; the recommended operating system is also identified.

Configuration

This Feature Section describes a typical operating environment.

Memory Partition Required • defines the minimum amount of computer memory required for system operation; usually measured in bytes.

Peripherals Required • identifies the input/output devices the manufacturer recommends for most efficient operation; includes disk drives, tape drives, CRTs, keyboards, printers, interfaces to PBX systems.

System Parameters

This Feature Section defines operational characteristics of the system.

Mode of Operation • indicates whether system operates in batch, interactive, multitasking, or a combination of these.

System Modifications • indicates whether the user is able to modify the system in any way, usually if source code is available from vendor.

Database • indicates who is responsible for establishing system database; vendor, user, or both.

System Features

This Feature Section identifies specific system features, typically the types of reports the system produces.

Reports Produced • lists the types of reports produced by the system.

Optional Reports • if the system has any optional reports or report packages, they are listed in this section.

Service Bureau Availability

This Feature Section indicates if the vendor has its own processing facilities in which user call records and other pertinent data can be processed into management reports.

First Delivery

This Feature Section presents the date the system was first installed

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in the field for customer use. If the system is new and located only in a Beta test site, it is noted as such.

Systems Installed

This Feature Section indicates the total number of a specified product that has been installed in the field for customer use. Where the systems installed reflect the total number of models included in the vendor's product line, it is noted as such.

Average System Cost

This Feature Section presents the average purchase price for the software license. Many systems are sold through independent dealers and distributors who establish their own pricing plans; therefore, the same software product can be priced much

differently from one vendor to another. Installation costs and maintenance fees, especially for updating rate tables, can drive up costs even further.

Distribution

This Feature Section indicates who markets the software product. The manufacturer may elect to sell the product directly, through a dedicated group of authorized distributors, or a combination of both.

Installation/Maintenance/Training

This Feature Section indicates who installs the system, provides maintenance for the software, which includes updating call pricing tables, and who provides end-user training on the system.

TELECOM SOFTWARE LISTINGS

■ ACCOUNT-A-CALL CORPORATION (AAC)

4450 Lakeside Drive, Burbank, CA 91505 • 818-846-3340.

□ TUMS (Telephone Usage Management System)

Function • call accounting • traffic optimization.

Computers/Operating Systems • IBM System/370-type and plug compatibles using MVS, DOS, VSAM file access; HP 3000 using MPE.

Configuration • memory partition required: IBM—512K; HP—64K • peripherals required: two 9-track tape drives; disk space required—7.5M bytes.

System Parameters • mode of operation: batch • system modifications: user must have AAC consent • databases: setup by AAC; updates by AAC; maintenance by user.

System Features • reports produced: 10 management; 7 accounting; 13 traffic • optional reports: general ledger interface; CompuClient bill back reports; Toll Comparison Analysis reports.

Service Bureau Availability • provided.

First Delivery • 1976.

Systems Installed • 80 firms licensed; over 300 locations using system.

Average System Cost • \$25,000 for single location, \$170/month maintenance; additional locations \$2,000.

Distribution • authorized distributors in San Francisco, Houston, Seattle, New York City, Chicago, and Orlando, FL.

Installation/Maintenance/Training • user installs system using documentation provided by AAC; system maintenance (enhancements, tariff updates) by AAC.

Comments • TUMS provides information for PBX systems; CompuTRES product provides same features as TUMS, but for Centrex users.

□ Interactive Traffic Analysis System (ITAS)

Function • traffic optimization • network design.

Computers/Operating Systems • mainframe computers with FORTRAN compiler; IBM PC/XT version available.

Configuration • memory partition required: 512K bytes • peripherals required: printer.

System Parameters • mode of operation: interactive menu-driven • system modifications: AAC • database: data input by user; database maintenance by AAC.

System Features • reports produced: optimization—number of trunks for specific grade of service, least expensive network setup; simulation—grade of service, cost of services, trunk loadings.

Service Bureau Availability • provided.

First Delivery • March 1985.

Systems Installed • under 10.

Average System Cost • \$12,000 (mainframes); \$5,000 (PC/XT).

Distribution • authorized distributors.

Installation/Maintenance/Training • under installation; AAC provides training, maintains software and tariff updates.

□ Telecommunications Inventory & Control System

Function • telephone equipment inventory • directory system.

Computers/Operating Systems • IBM PC/XT using PC-DOS; Convergent Technologies AWS-467.

Configuration • memory partition required: 256K bytes • peripherals required: IBM—diskette, hard disk, CRT/keyboard, printer; Convergent—diskette, hard disk, CRT/keyboard, printer.

System Parameters • mode of operation: interactive • system modifications: table driven • database: user controlled.

System Features • reports produced: equipment inventory; circuit data records; general ledger interface; trouble ticket control; work order control; online directory; report writer module.

Service Bureau Availability • not provided.

First Delivery • March 1985.

Systems Installed • under 10.

Average System Cost • \$12,000 plus \$100/month maintenance after 90-day warranty.

Distribution • authorized distributors.

Installation/Maintenance/Training • user installed; maintenance and support by AAC.

■ AMERICAN COMPUTER & ELECTRONICS CORPORATION

209 Perry Parkway, Gaithersburg, MD 20877 • 301-258-9850.

□ TELMARS (Telecommunications Management & Reporting System)

Function • call accounting • traffic optimization • directory system • telephone equipment inventory • cable and wiring record system.

Computers/Operating Systems • Digital Equipment VAX using VMS.

Configuration • memory partition required: 128K bytes • peripherals required: disk; tape; CRT; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: full range of customer billing

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services; administrative moves and changes; company phone directories • optional reports: can be custom designed.

Service Bureau Availability • provided.

First Delivery • 1981.

Systems Installed • over 30.

Average System Cost • \$15,000 to \$50,000.

Distribution • vendor.

Installation/Maintenance/Training • vendor.

Comments • modular system for use by telephone companies, interconnects for customer billing (Administrative Billing System Module), moves and changes (Telephone Service Request Module), and directory service (Directory Assistance System IV Module).

■ THE ARIES GROUP

1395 Piccard, Suite 230, Rockville, MD 20850 • 301-963-7555.

Juno

Function • traffic optimization • network design.

Computers/Operating Systems • IBM/IBM-compatible mainframes using VM.

Configuration • memory partition required: 1M bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user and vendor.

System Features • reports produced: traffic distribution; system characteristics.

Service Bureau Availability • provided.

First Delivery • 1972.

Systems Installed • over 200.

Average System Cost • \$12,500 to \$50,000.

Distribution • The Aries Group.

Installation/Maintenance/Training • The Aries Group.

■ BCR ENTERPRISES, INC

950 York Road, Hinsdale, IL 60521-2939 • 312-986-1432.

First Course in Telephone Traffic Engineering

Function • traffic optimization • network design.

Computers/Operating Systems • IBM PC, PC/XT, PC compatibles using PC-DOS 1.1, 2.0, 2.1.

Configuration • memory partition required: 128K bytes • peripherals required: CRT/keyboards; diskette; printer.

System Parameters • mode of operation: interactive • system modifications: vendor, user • database: user.

System Features • reports produced: numerous trunk traffic reports; multiple WATS configurations; grade of service computations.

Service Bureau Availability • not provided.

First Delivery • November 1983.

Systems Installed • over 750.

Average System Cost • \$395.

Distribution • BCR.

Installation/Maintenance/Training • BCR.

Financial Analysis Software for Telecommunications

Function • accounting and financial analysis specifically for telecom applications.

Computers/Operating Systems • IBM PC, PC/XT, PC compatibles using PC-DOS 1.1, 2.0, 2.1.

Configuration • memory partition required; 128K bytes • peripherals required: CRT/keyboard; diskette; printer.

System Parameters • mode of operation: interactive • system modifications: user • database: user.

System Features • reports produced: cash flows; net present value calculations; used with purchase and lease/purchase situations.

Service Bureau Availability • not provided.

First Delivery • June 1984.

Systems Installed • over 200.

Average System Cost • \$395.

Distribution • BCR.

Installation/Maintenance/Training • BCR.

■ BENTON, SCHNEIDER & ASSOCIATES (BSA)

100 Park Plaza, Suite 202, Naperville, IL 60540 • 312-357-3131.

CAPS (Cost Allocation Processing System)

Function • call accounting • traffic optimization.

Computers/Operating Systems • any computer with FORTRAN compiler (e.g., IBM, Digital Equipment, Honeywell, Hewlett-Packard).

Configuration • memory partition required: 64K bytes • peripherals required: tape drive.

System Parameters • mode of operation: batch • system modifications: only by vendor • database: user.

System Features • reports produced: reports by individual detail, summaries, traffic detail • optional reports: equipment expenses.

Service Bureau Availability • not provided.

First Delivery • 1979.

Systems Installed • 35.

Average System Cost • 18,000.

Distribution • direct through BSA.

Installation/Maintenance/Training • BSA provides installation, maintenance, and training; rate table updates provided by third party.

■ COMMERCIAL SOFTWARE, INC

370 Lexington Avenue, New York, NY 10170 • 212-557-0350.

Cadets

Function • call accounting • traffic optimization.

Computers/Operating Systems • IBM/IBM-compatible mainframes using OS.

Configuration • memory partition required: 256K bytes • peripherals required: CRT/keyboard; disk; printer.

System Parameters • mode of operation: batch • system modifications: vendor • database: user.

System Features • reports produced: department summaries; traffic details; exception reports; supports multinode tandem networks.

Service Bureau Availability • not provided.

First Delivery • 1978.

Systems Installed • over 30.

Average System Cost • \$22,000 to \$50,000.

Distribution • Commercial Software.

Installation/Maintenance/Training • Commercial Software.

TEMS

Function • telephone equipment inventory • service order tracking • maintenance recording and reporting system.

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Computers/Operating Systems • Digital Equipment VAX using VMS; AT&T 3B using UNIX V.5.

Configuration • memory partition required: 256K bytes • peripherals required: CRT/keyboard; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor, user • database: user.

System Features • reports produced: equipment inventory; trunk line inventory; cable inventory; cost allocation reports; work order and maintenance tracking reports.

Service Bureau Availability • not provided.

First Delivery • 1983.

Systems Installed • 15.

Average System Cost • \$90,000.

Distribution • Commercial Software.

Installation/Maintenance/Training • Commercial Software.

■ COMMUNICATIONS ANALYSIS

100 Fountain Street, Framingham, MA 01701 • 617-875-7300.

MOSTE (Management of Systems Telephone Expense)

Function • call accounting • traffic optimization • hotel/motel billing/resale • telephone equipment inventory • service order tracking • trouble report.

Computers/Operating Systems • Digital Equipment PDP-11 using RSTS; VAX using VMS.

Configuration • memory partition required: 128K bytes • peripherals required • 70K blocks of disk space; VT100 terminal; 300-lpm printer; 9-track tape drive.

System Parameters • mode of operation: batch or interactive • system modifications: none; system is formatted to user's requirements • database: vendor; \$1,500 database setup fee.

System Features • reports produced: system summaries; department totals; traffic reports; database summaries; directory of employees • optional reports: resale module; service order module; equipment inventory module; trouble reporting module.

Service Bureau Availability • provided.

First Delivery • 1983.

Systems Installed • 10.

Average System Cost • \$21,000.

Distribution • direct.

Installation/Maintenance/Training • Communications Analysis; annual maintenance fee \$2,500.

Comments • inventory records converted to DEC or IBM formats.

■ COMMUNICATIONS DESIGN CORPORATION

62 Mill River Street, Stamford, CT 06902 • 203-324-0820.

Cable Management System (CMS)

Function • cable and wiring record system.

Computers/Operating Systems • IBM/IBM-compatible mainframes using MVS, DOS/VSE, VM.

Configuration • memory partition required: 512K bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch; interactive • system modifications: user; vendor • database: user.

System Features • reports produced: cable run diagrams; MDF/IDF diagrams; cross-connect layouts; available pairs reports.

Service Bureau Availability • not provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$18,000.

Distribution • vendor.

Installation/Maintenance/Training • vendor.

Comments • links up with other Com Design systems.

Communications Equipment Manager (CEM)

Function • telephone equipment inventory.

Computers/Operating Systems • IBM/IBM-compatible mainframes using DOS/VSE, MVS, VM.

Configuration • memory partition required: 512K bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch; interactive • system modifications: user; vendor • database: user; vendor.

System Features • reports produced: USOC reports; reports by department; unit pricing reports; company summaries.

Service Bureau Availability • not provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$22,000.

Distribution • vendor.

Installation/Maintenance/Training • vendor.

Comments • links to other Com Design systems.

Leased Wire Manager (LWM)

Function • leased line circuit management system.

Computers/Operating Systems • IBM/IBM-compatible mainframe using DOS/VSE, MVS, VM.

Configuration • memory partition required: 512K bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch; interactive • system modifications: user; vendor • database: user.

System Features • reports produced: tracks all leased circuits; tracks datacom equipment associated with lines; billing reports.

Service Bureau Availability • not provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$21,000.

Distribution • vendor.

Installation/Maintenance/Training • vendor.

Comments • links up to general ledger systems; other Com Design systems.

Work Order & Trouble Desk System

Function • maintenance recording and reporting system.

Computers/Operating Systems • IBM/IBM-compatible mainframes using DOS/VSE, MVS, VM.

Configuration • memory partition required: 512K bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch; interactive • system modifications: user; vendor • database: user; vendor.

System Features • reports produced: work orders; trouble tickets; system up/down time statistics; MTTR reports.

Service Bureau Availability • not provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$14,500.

Distribution • vendor.

Installation/Maintenance/Training • vendor.

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Com-Net

Function • call accounting • traffic optimization • network design • directory system.

Computers/Operating Systems • IBM/IBM-compatible mainframes using MVS, DOS/VSE, VM.

Configuration • memory partition required: 512K bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch • system modifications: user; vendor • database: user; vendor.

System Features • reports produced: 6 modules available—costing/allocation, account code billing, directory, exception reports, network optimization, network utilization.

Service Bureau Availability • not provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$38,000.

Distribution • vendor.

Installation/Maintenance/Training • vendor.

Comments • compatible with all PBX/Centrex systems; can be used with ETN/EPSCS networks; links to other Com Design systems.

Com-Net On-Line

Function • multinode database management system.

Computers/Operating Systems • IBM/IBM-compatible mainframes using DOS/VSE, MVS, VM.

Configuration • memory partition required: 512K bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive; based on CICS, IMS • system modifications: user; vendor • database: user.

System Features • reports produced: facilities file updating; directory updating; account code file updating.

Service Bureau Availability • not provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$17,000.

Distribution • vendor.

Installation/Maintenance/Training • vendor.

Comments • provides access to all database files; tailored to multilocation operations; links to other Com Design systems.

CONTEL INFORMATION SYSTEMS

130 Steamboat Road, Great Neck, NY 11024 • 516-829-5900.

Grinder

Function • traffic optimization • network design.

Computers/Operating Systems • Digital Equipment DECsystem-20 using TOPS-20.

Configuration • memory partition required: 256K words • peripherals required: CRT; modems; printer; disk.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: network configuration summaries; graphic layouts; simulation.

Service Bureau Availability • provided.

First Delivery • 1975.

Systems Installed • over 25.

Average System Cost • undisclosed.

Distribution • Contel.

Installation/Maintenance/Training • Contel.

MIND-Data/MIND-Data 300

Function • multipoint private data network design.

Computers/Operating Systems • DECsystem-20 using TOPS-20; IBM mainframes using VM and TSO.

Configuration • memory partition required: 256K words (DEC); 1M bytes (IBM) • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: trunk line summaries; circuit reports; graphics.

Service Bureau Availability • provided.

First Delivery • 1977 (MIND-Data); 1985 (MIND-Data 300).

Systems Installed • over 1,000.

Average System Cost • \$12,000 to \$40,000 (MIND-Data); \$2,500 (MIND-Data 300).

Distribution • Contel.

Installation/Maintenance/Training • Contel.

Comments • MIND-Data 300 designed for low-cost network design projects.

MIND-Inventory

Function • network inventory system.

Computers/Operating Systems • IBM PC/XT using MS-DOS.

Configuration • memory partition required: 128K bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor; user • database: user.

System Features • reports produced: network component inventory; circuit order tracking.

Service Bureau Availability • not provided.

First Delivery • January 1985.

Systems Installed • over 10.

Average System Cost • \$4,995.

Distribution • Contel.

Installation/Maintenance/Training • Contel.

MIND-PDM

Function • multinode tandem voice network design.

Computers/Operating Systems • DECsystem-20 using TOPS-20.

Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: configurations for large-scale tandem voice networks; EPSCS/ETN design modules; topology layout.

Service Bureau Availability • provided.

First Delivery • 1983.

Systems Installed • over 10.

Average System Cost • \$10,000 to \$30,000.

Distribution • Contel.

Installation/Maintenance/Training • Contel.

MIND-Pricer III

Function • private line network circuit pricing.

Computers/Operating Systems • DECsystem-20 using TOPS-20.

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Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: circuit prices for various configurations.

Service Bureau Availability • provided.

First Delivery • December 1982; latest release, May 1985.

Systems Installed • over 30.

Average System Cost • from \$500/year plus timeshare usage.

Distribution • Contel.

Installation/Maintenance/Training • Contel.

Comments • includes OCC and intrastate (intra-LATA, inter-LATA) tariffs.

MIND-Voice

Function • traffic optimization • network design for small to medium voice networks.

Computers/Operating Systems • DECsystem-20 using TOPS-20.

Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: traffic summaries on several fields; network configurations; network pricing.

Service Bureau Availability • provided.

First Delivery • 1982.

Systems Installed • over 10.

Average System Cost • \$10,000 to \$30,000.

Distribution • Contel.

Installation/Maintenance/Training • Contel.

■ CP NATIONAL CORPORATION

242 Old New Brunswick Road, Piscataway, NJ 08054 • 201-981-8100.

TSS (Telemanagement Software System)

Function • call accounting • traffic analysis.

Computers/Operating Systems • IBM/IBM-compatible mainframes using MVS, DOS.

Configuration • memory partition required: 256K bytes • peripherals required: disk, tape subsystems.

System Parameters • mode of operation: batch • system modifications: user or vendor • database: user and vendor.

System Features • reports produced: 6 cost allocation; 3 exception; 11 network analysis • optional reports: communications budget; general ledger interface; toll tape interface.

Service Bureau Availability • provided.

First Delivery • January 1978.

Systems Installed • over 80.

Average System Cost • \$24,500 and up.

Distribution • CP National.

Installation/Maintenance/Training • CP National.

Comments • lifetime warranty.

TSS/ETN

Function • call accounting • traffic optimization.

Computers/Operating Systems • IBM/IBM-compatible mainframes using MVS, DOS.

Configuration • memory partition required: 256K bytes • peripherals required: disk; tape subsystems.

System Parameters • mode of operation: batch • system modifications: user or vendor • database: user and vendor.

System Features • reports produced: 6 cost allocation; 3 exception; 11 network analysis • optional reports: communications budget; general ledger interface; toll tape interface.

Service Bureau Availability • provided.

First Delivery • January 1981.

Systems Installed • 4.

Average System Cost • \$29,500 and up.

Distribution • CP National.

Installation/Maintenance/Training • CP National.

Comments • used with Electronic Tandem Network in AT&T Dimension systems; lifetime warranty.

PC Poller

Function • polling software.

Computers/Operating Systems • IBM PC, PC/XT, PC/AT using PC DOS, XENIX.

Configuration • memory partition required: 128K bytes • peripherals required: auto-dialer; modem; disk; diskette.

System Parameters • mode of operation: real-time • system modifications: user or vendor • database: vendor.

System Features • reports produced: none; system controls polling operation of remote call accounting systems!

Service Bureau Availability • not provided.

First Delivery • February 1985.

Systems Installed • under 10.

Average System Cost • \$4,500.

Distribution • CP National.

Installation/Maintenance/Training • CP National.

■ CREATIVE MANAGEMENT SYSTEMS, INC

1500 Planning Research Drive, McLean, VA 22102 • 703-556-2300.

CMS-3000

Function • call accounting • traffic optimization • network design • directory system.

Computers/Operating Systems • IBM/IBM-compatible mainframes using MVS.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch • system modifications: vendor/user • database: vendor/user.

System Features • reports produced: budget; inventory/management; administrative management; network management; database management • optional reports: DDD ratings for cost comparisons.

Service Bureau Availability • not provided.

First Delivery • 1985.

Systems Installed • under 10.

Average System Cost • undisclosed.

Distribution • CMS.

Installation/Maintenance/Training • CMS.

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory,
Telephone Directory & Resale of Telecom Services

■ DIGITAL EQUIPMENT CORPORATION

22 Kane Drive, Hudson, MA 01749 • 617-480-6111.

P/FM (PBX Facilities Management)

Function • multitenant resale • telephone equipment inventory.

Computers/Operating Systems • VAX using VMS.

Configuration • memory partition required: configuration dependent • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive menu-driven • system modifications: vendor • database: vendor/user.

System Features • reports produced: cost allocation; traffic statistics; invoicing of Telecom/non-Telecom equipment; database management.

Service Bureau Availability • not provided.

First Delivery • 1983.

Systems Installed • 25.

Average System Cost • \$18,500.

Distribution • DEC.

Installation/Maintenance/Training • DEC.

Comments • rate tables and V&H tables are offered quarterly.

Telepro

Function • call accounting • traffic optimization.

Computers/Operating Systems • DEC PDP-11-23, Micro PDP, VAX using RSX and VMS.

Configuration • memory partition required: configuration dependent • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive menu-driven • system modifications: vendor • database: vendor/user.

System Features • reports produced: cost allocation; traffic management • optional reports: customization available.

Service Bureau Availability • not provided.

First Delivery • 1982.

Systems Installed • 50.

Average System Cost • \$7,700 (PDP); \$12,700 (VAX).

Distribution • DEC.

Installation/Maintenance/Training • DEC.

Comments • rate tables, V&H tables, and feature enhancements updates are offered on a quarterly basis.

■ THE DMW GROUP

2020 Hogback Road, Ann Arbor, MI 48104 • 313-971-5234.

Telecost

Function • call accounting.

Computers/Operating Systems • IBM/IBM-compatible mainframes, VAX 750/780 using MVS and VMS.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch; interactive • system modifications: vendor • database: vendor/user.

System Features • reports produced: department trunk groups; exception reports for long duration and frequently called numbers; user-created reports.

Service Bureau Availability • provided.

First Delivery • 1977.

Systems Installed • undisclosed.

Average System Cost • \$25,000 single-node; \$35,000 multinode.

Distribution • DMW.

Installation/Maintenance/Training • DMW.

Teletraffic Optimizer Program (TOP)

Function • traffic optimization.

Computers/Operating Systems • IBM/IBM-compatible mainframes, VAX 750/780 using MVS and VAX/VMS.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch; interactive • system modifications: vendor • database: vendor/user.

System Features • reports produced: trunk usage summaries; call distribution summaries • optional reports: Foreign Exchange modules (FX).

Service Bureau Availability • provided.

First Delivery • 1978.

Systems Installed • undisclosed.

Average System Cost • \$25,000 single-node; \$45,000 multinode.

Distribution • DMW.

Installation/Maintenance/Training • DMW.

Networker

Function • network design.

Computers/Operating Systems • IBM/IBM-compatible mainframes, VAX 750/780 using DOS/VS, MVS, and VAX/VMS.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: vendor/user.

System Features • reports produced: network layout; traffic activity in numerous system configurations; network cost.

Service Bureau Availability • provided.

First Delivery • 1984.

Systems Installed • undisclosed.

Average System Cost • \$35,000.

Distribution • DMW.

Installation/Maintenance/Training • DMW.

TeleTrack

Function • telephone equipment inventory.

Computers/Operating Systems • IBM PC using PC-DOS.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer; modem.

System Parameters • mode of operation: interactive • system modifications: vendor • database: vendor/user.

System Features • 25 reports pertaining to inventory.

Service Bureau Availability • provided.

First Delivery • 1985.

Systems Installed • under 10.

Average System Cost • \$15,000.

Distribution • DMW.

Installation/Maintenance/Training • DMW.

Comments • billing; confirmation; chargeback; service analysis.

■ H/L TELECOMM ASSOCIATES, INC

502 Harrow Road, Richmond, VA 23225 • 804-257-7880.

Communications Management Software

Function • telephone equipment inventory • directory system.

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory, Telephone Directory & Resale of Telecom Services

Computers/Operating Systems • IBM PC using MS-DOS.

Configuration • memory partition required: 128K bytes • peripherals required: CRT; printer; disk.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: department billing; various equipment listings; extension listings; directory • optional reports: can be customized.

Service Bureau Availability • provided.

First Delivery • 1984.

Systems Installed • over 10.

Average System Cost • \$2,000 to \$6,000.

Distribution • H/L Telecomm.

Installation/Maintenance/Training • H/L Telecomm.

Comments • company also provides SMDR call processing and consultation services.

CACSS (Computer Aided Communication System Selection)

Function • analyzes communication system proposals.

Computers/Operating Systems • IBM PC using MS-DOS.

Configuration • memory partition required: 128K bytes • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: feature comparison; system description; vendor comparison; financial analysis.

Service Bureau Availability • provided.

First Delivery • 1984.

Systems Installed • over 10.

Average System Cost • \$1,500 to \$3,000.

Distribution • H/L Telecomm.

Installation/Maintenance/Training • H/L Telecomm.

■ HTL TELEMAGEMENT, LTD

1300 Old Chain Bridge Road, McLean, VA 22101 • 703-734-8244.

NTD-1 Toll Statement Analyzer

Function • call accounting.

Computers/Operating Systems • IBM, Compaq, DEC, Rainbow, AT&T Model 6300 using PC-DOS and MS-DOS.

Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer; modem.

System Parameters • mode of operation: interactive • system modifications: vendor • database: vendor.

System Features • reports produced: summaries by service area, day, hour; analysis of OCC eligibility; analysis by area code; monthly traffic estimates.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$2,100.

Distribution • HTL.

Installation/Maintenance/Training • HTL.

Comments • OCC eligibility; service area classification files.

NTD-4 Traffic Engineers Toolkit

Function • traffic optimization.

Computers/Operating Systems • IBM, Compaq, DEC Rainbow, AT&T Model 6300 using PC-DOS and MS-DOS.

Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer; modem.

System Parameters • mode of operation: interactive • system modifications: vendor • database: vendor.

System Features • reports produced: lines and cost for grade of service; grade of service for comp duration; carried traffic from offered traffic; automated traffic table computations.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$500.

Distribution • HTL.

Installation/Maintenance/Training • HTL.

Comments • interstate rate data supplied.

NTD-6 Switch Designer

Function • traffic optimization.

Computers/Operating Systems • IBM, DEC Rainbow, AT&T Model 6300 using PC-DOS and MS-DOS.

Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer; modem.

System Parameters • mode of operation: interactive • system modifications: vendor • database: vendor.

System Features • reports produced: multiple facility least-cost optimization; analyses of specified configurations; busy hour analyses.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$31,000.

Distribution • HTL.

Installation/Maintenance/Training • HTL.

Comments • database manager for rate data.

NTD-7 ACD Position Designer

Function • traffic optimization.

Computers/Operating Systems • IBM, Compaq, DEC Rainbow, AT&T Model 6300.

Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer; modem.

System Parameters • mode of operation: interactive • system modifications: vendor • database: vendor.

System Features • reports produced: traffic analysis.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$1,800.

Distribution • HTL.

Installation/Maintenance/Training • HTL.

Comments • in-WATS costing.

NTD-9 Enhanced Switch Designer

Function • traffic optimization.

Computers/Operating Systems • IBM, Compaq, DEC Rainbow, AT&T Model 6300 using PC-DOS and MS-DOS.

Configuration • memory partition required: 256K words •

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory, Telephone Directory & Resale of Telecom Services

peripherals required: CRT; disk; printer; modem.

System Parameters • mode of operation: interactive • system modifications: vendor/user • database: vendor/user.

System Features • reports produced: traffic analysis; busy hour analysis; least cost configuration optimizer.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$8,000.

Distribution • HTL.

Installation/Maintenance/Training • HTL.

Comments • database manager for rate data.

■ THE INFO GROUP

46 Park Street, Framingham, MA 01701 • 617-875-7511.

TMAC (Telephone Expense Management & Control System)

Function • call accounting.

Computers/Operating Systems • IBM mainframes using MVS, DOS; IBM PC/AT using MS-DOS; AT&T 3B and PC using UNIX.

Configuration • memory partition required: 356K bytes • peripherals required: CRT/keyboard; printer; hard disk.

System Parameters • mode of operation: interactive • system modifications: partial by user • database: user.

System Features • reports produced: budget worksheet; consolidated summary reports; location detail reports; exception reports; missing/duplicate bill reports; location cross-reference report.

Service Bureau Availability • provided.

First Delivery • 1984.

Systems Installed • 10.

Average System Cost • \$15,000 to \$35,000.

Distribution • The Info Group.

Installation/Maintenance/Training • The Info Group.

Comments • interfaces with other Info Group systems.

EFMS/Directory

Function • directory system • telephone equipment inventory • cable and wiring record system • maintenance recording and reporting system • service order recording and monitoring system.

Computers/Operating Systems • IBM PC/AT using MS-DOS; AT&T 3B and PC 7300 using UNIX.

Configuration • memory partition required: 256K bytes • peripherals required: hard disk; CRT/keyboard; printer.

System Parameters • mode of operation: interactive; multitasking • system modifications: partial by user • database: user and Info Group.

System Features • reports produced: 6—service order; 6—equipment inventory; 2—cable inventory; 2—line equipment; 2—trouble reporting; 4—directory system.

Service Bureau Availability • provided.

First Delivery • 1984.

Systems Installed • 10.

Average System Cost • \$30,000 to \$50,000.

Distribution • The Info Group.

Installation/Maintenance/Training • The Info Group.

Comments • interfaces with other Info Group systems.

Info-Call

Function • call accounting • traffic optimization • telephone directory.

Computers/Operating Systems • IBM mainframes using MVS, DOS; IBM PC/AT using MS-DOS; AT&T PC and 3B using UNIX.

Configuration • memory partition required: 256K bytes • peripherals required: tape and disk (mainframes); hard disk (PCs).

System Parameters • mode of operation: mainframe—interactive/batch; PCs—interactive, multitasking • system modifications: 100%—headers; 2 directory • parameters user-definable • database: setup—The Info Group; ongoing maintenance—user.

System Features • reports produced: 5 control/allocation: 7 trunk/station analysis; 8 network management; 2 authorization code/user billing; 2 directory • optional reports: custom reports interfacing with other Info Group systems.

Service Bureau Availability • provided.

First Delivery • 1979.

Systems Installed • 100.

Average System Cost • \$17,500 to \$30,000.

Distribution • The Info Group.

Installation/Maintenance/Training • The Info Group.

Network Analyzer

Function • network design.

Computers/Operating Systems • IBM PC using MS-DOS; AT&T PC using UNIX.

Configuration • memory partition required: 128K bytes • peripherals required: CRT; printer.

System Parameters • mode of operation: interactive • system modifications: none • database: none.

System Features • reports produced: network configuration report.

Service Bureau Availability • provided.

First Delivery • 1984.

Systems Installed • 15.

Average System Cost • \$7,500.

Distribution • The Info Group.

Installation/Maintenance/Training • The Info Group.

Comments • interfaces with Info-Call.

■ MARKETING & SYSTEMS DEVELOPMENT CORP

1200 Wall Street West, Lyndhurst, NJ 07071 • 201-935-9200.

TACS IV

Function • call accounting.

Computers/Operating Systems • IBM mainframe using MVS.

Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch • system modifications: user • database: user.

System Features • reports produced: extension billing; cost center allocation and summary; call type summary; identification summary; called number activity by frequency; area code reports; account code summary; traffic engineering.

Service Bureau Availability • provided.

First Delivery • 1978.

Systems Installed • 80.

Average System Cost • \$30,000; \$5,000 for additional locations.

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory, Telephone Directory & Resale of Telecom Services

Distribution • M&SD.

Installation/Maintenance/Training • M&SD.

Comments • processes data from most PABX systems.

■ **MBG ASSOCIATES LIMITED**

60 Wright Pond Road, Westbrook, CT 06948 • 203-399-9135.

Telecommunications Management Information System (T-MIS)

Function • call accounting • traffic optimization • network design.

Computers/Operating Systems • IBM mainframes using VM/CMS and MVS.

Configuration • memory partition required: 1 to 2M words • peripherals required: CRT; disk; printers.

System Parameters • mode of operation: batch or interactive • system modifications: vendor/user • database: vendor/user.

System Features • reports produced: lost data; network group activity analysis; daily summary; site cost; multinode optimization.

Service Bureau Availability • provided.

First Delivery • 1982.

Systems Installed • undisclosed.

Average System Cost • \$125,000.

Distribution • MBG.

Installation/Maintenance/Training • MBG.

Comments • system designed for large corporate networks particularly EPSCS; incorporates 5 subsystems, utility.

Telephone Allocation Billing System (TABS)

Function • call accounting.

Computers/Operating Systems • IBM mainframe using VM/CMS and MVS.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch or interactive • system modifications: vendor/user • database: vendor/user.

System Features • reports produced: cost; user detail; manager/department; comptroller.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$25,000.

Distribution • MBG.

Installation/Maintenance/Training • MBG.

■ **MCS, INC**

400 Penn Center Boulevard, Pittsburgh, PA 15235 • 412-823-7440.

Telephone Usage & Cost Management System

Function • call accounting • traffic optimization.

Computers/Operating Systems • IBM System/370, 43XX, 30XX using DOS and OS; programs written in ANSI COBOL.

Configuration • memory partition required: 128K bytes • peripherals required: disk; tape; printer.

System Parameters • mode of operation: batch • system modifications: available for users • database: user and MCS.

System Features • reports produced: 20 including summaries by extension and department; exception reports; traffic usage summaries; authorization code summaries; extension directory; equipment inventory • optional reports: interface with MCS Telephone Inventory Management System.

Service Bureau Availability • provided.

First Delivery • 1979 (service bureau); 1984 (software).

Systems Installed • 27.

Average System Cost • \$22,000.

Distribution • MCS.

Installation/Maintenance/Training • MCS.

Comments • system can interface with user or MCS Billing/Accounts Receivable and Financial Systems.

Telephone Inventory Management System

Function • telephone equipment inventory.

Computers/Operating Systems • IBM System/370, 43XX, 30XX using DOS and OS; programs written in ANSI COBOL.

Configuration • memory partition required: 128K bytes • peripherals required: disk; tape; printer.

System Parameters • mode of operation: batch • system modifications: available for users • database: user and MCS.

System Features • reports produced: USOC (Universal Service Order Code) master list; USOC summary; service and equipment summary; service and equipment inventory • optional reports: interface with Mcs Telephone Usage and Cost Management System.

Service Bureau Availability • provided.

First Delivery • 1983 (service bureau); 1985 (software).

Systems Installed • 4.

Average System Cost • \$8,000.

Distribution • MCS.

Installation/Maintenance/Training • MCS.

Comments • Telephone Inventory Management System with Directory to be available for standalone IBM PC/XT system mid-1985.

■ **MICRO-TEL, INC**

6075 The Corners Parkway, Suite 109, Norcross, GA 30092 • 404-447-5408.

Microcall

Function • call accounting.

Computers/Operating Systems • IBM PC, PC/XT, PC/AT, and AT&T Model 6300 using PC-DOS and MS-DOS.

Configuration • memory partition required: 256K words • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications user • database: vendor/user.

System Features • reports produced: extension detail and summary; company summary; traffic; trunk; group; account code.

Service Bureau Availability • not provided.

First Delivery • 1983.

Systems Installed • 420.

Average System Cost • \$895 to \$3,295.

Distribution • MTI.

Installation/Maintenance/Training • MTI.

Comments • company telephone directory.

■ **RADIONICS, INC**

92 Holt Road, Webster, NY 14580 • 716-872-2100.

Directory Plus

Function • directory system • telephone equipment inventory • cable and wiring record system.

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory, Telephone Directory & Resale of Telecom Services

Computers/Operating Systems • proprietary.

Configuration • memory partition required: 256K bytes • peripherals required: 5M-byte or 15M-byte hard disk; CRT/keyboards; printer.

System Parameters • mode of operation: interactive • system modifications: none • database: user.

System Features • reports produced: directory listings; complete company directory; equipment and cable listings.

Service Bureau Availability • not provided.

First Delivery • October 1984.

Systems Installed • under 10.

Average System Cost • \$15,750 and up.

Distribution • direct; authorized distributors.

Installation/Maintenance/Training • Radionics; distributors.

Comments • standalone operation; used with PBX or Centrex.

Tel Trak 2

Function • personnel location and message center system.

Computers/Operating Systems • proprietary.

Configuration • memory partition required: 32K to 128K bytes • peripherals required: CRT/keyboards; diskette; hard disk.

System Parameters • mode of operation: interactive • system modifications: none • database: user.

System Features • reports produced: personnel status; user messages.

Service Bureau Availability • not provided.

First Delivery • October 1983.

Systems Installed • over 20.

Average System Cost • \$24,000.

Distribution • direct; authorized distributors.

Installation/Maintenance/Training • Radionics; distributors.

Comments • standalone system; access through standard telephones, CRTs.

SOFT-COM, INC

22 West 21st Street, New York, NY 10010 • 212-242-9595.

PROCOM

Function • call accounting • traffic optimization • network design • hotel/motel billing/resale • multitenant resale • directory system • telephone equipment inventory.

Computers/Operating Systems • Digital Equipment PDP-11 using RSTS.

Configuration • memory partition required: 128K words • peripherals required: 10M-byte disk; CRT; printer.

System Parameters • mode of operation: interactive; batch • system modifications: vendor • database: user; vendor.

System Features • reports produced: complete extension detail; department summaries; trunk analyses; inventory control; repair order tracking; directory listing; hotel/motel and health care reporting • optional reports: customer can design reports.

Service Bureau Availability • provided.

First Delivery • 1984.

Systems Installed • over 30.

Average System Cost • \$10,000 to \$40,000.

Distribution • Soft-Com.

Installation/Maintenance/Training • Soft-Com.

Comments • PROCOM includes CDR, Inventory, and Directory modules; can track up to 2,000,000 calls.

Scout

Function • call accounting • traffic optimization.

Computers/Operating Systems • IBM PC/XT or equivalent using MS-DOS or CP/M-86.

Configuration • memory partition required: 512K bytes • peripherals required: CRT; printer; disk; RS-232C.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user; vendor.

System Features • reports produced: extension detail/summary; department summary; daily trunk summary; client detail; search reports that highlight specific parameters.

Service Bureau Availability • not provided.

First Delivery • 1984.

Systems Installed • over 30.

Average System Cost • \$1,500 to \$3,000.

Distribution • Soft-Com.

Installation/Maintenance/Training • Soft-Com.

Comments • system can track up to 100,000 calls.

STONEHOUSE & COMPANY

4100 Spring Valley Road, Suite 400, Dallas, TX 75234 • 214-960-1566.

MONIES (Management of Network Income, Expense & Services)

Function • call accounting • traffic optimization • network design • directory system • telephone equipment inventory • cable and wiring record system • maintenance recording and reporting system.

Computers/Operating Systems • IBM/IBM-compatible mainframes under MVS and VM.

Configuration • memory partition required: 1M bytes • peripherals required: CRT; tape; disk.

System Parameters • mode of operation: interactive; batch • system modifications: vendor; user • database: vendor; user.

System Features • reports produced: modules include telecom equipment orders, billings, corporate directory, network analysis, network maintenance and diagnostics, equipment inventory.

Service Bureau Availability • not provided.

First Delivery • 1984.

Systems Installed • under 10.

Average System Cost • \$35,000 (single module); \$250,000 (complete system).

Distribution • Stonehouse.

Installation/Maintenance/Training • Stonehouse.

Comments • supports both voice and data networks.

SYNERCOM TECHNOLOGY, INC

10408 Corporate Drive, Sugar Land, TX 77478; 713-240-5000 • Canada: 5-151 Carlingview Drive, Rexdale, ON L9W 504; 416-674-0369.

OPIS/3

Function • telephone outside plant information system.

Computers/Operating Systems • Digital Equipment VAX using VMS.

Configuration • memory partition required: 2M bytes • peripherals required: disk; tape; CRT/keyboard; printer.

System Parameters • mode of operation: interactive, multiuser • system modifications: none • database: user.

System Features • reports produced: outside plant records; cable records; graphics/database management.

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory, Telephone Directory & Resale of Telecom Services

Service Bureau Availability • not provided.

First Delivery • 1973.

Systems Installed • under 10.

Average System Cost • undisclosed.

Distribution • Synercom.

Installation/Maintenance/Training • Synercom.

■ TELCO RESEARCH CORP

1207 17th Avenue, Nashville, TN 37212 • 615-329-0031.

The Optimizer Plus Extended

Function • traffic optimization.

Computers/Operating Systems • IBM, Honeywell, Amdahl mainframe, Data General MV-8000, DEC-10 using MVS, VM/CMS, RSX-11M.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch or interactive • system modifications: vendor • database: user.

System Features • reports produced: overall summary; original configuration; optimal configuration.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • 40.

Average System Cost • \$38,000.

Distribution • Telco.

Installation/Maintenance/Training • Telco.

Comments • tariff files updated quarterly by vendor; simulation.

The ACD Optimizer

Function • traffic optimization.

Computers/Operating Systems • IBM mainframe, DEC-10, DEC PDP-11, Datapoint ARC using MVS, VM/CMS, RSX-11M, and Z80-based microcomputers.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch or interactive • system modifications: vendor • database: user.

System Features • reports produced: facilities utilization; analysis of splits; overall ACD performance; call details.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$27,500.

Distribution • Telco.

Installation/Maintenance/Training • Telco.

Comments • WATS, foreign exchange, tie lines, supports all current ACD equipment, event simulation.

Multi-Node Tandem Optimizer

Function • network design.

Computers/Operating Systems • IBM mainframe, DEC-10, DEC-20, Data General MV/8000 using MVS, VM/CMS, and TOPS-10/-20.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch or interactive • system modifications: vendor/user • database: user.

System Features • reports produced: network comparison;

feasibility; optimal configuration; timing decisions.

Service Bureau Availability • provided.

First Delivery • 1978.

Systems Installed • undisclosed.

Average System Cost • \$66,000 to \$75,000.

Distribution • Telco.

Installation/Maintenance/Training • Telco.

Comments • tariff change projections; all carriers considered such as SBS and MCI analyzes WATS, FX; simulation.

Billing Inventory Telecommunication Systems (BITS)

Function • call accounting • telephone equipment inventory.

Computers/Operating Systems • IBM mainframe, DEC/VXVMS using MVS, VM/CMS, and RSX-11M.

Configuration • memory partition required: undisclosed • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor/user • database: user.

System Features • reports produced: online display of system components; listing by equipment or circuit numbers, vendor reference number, or verified invoices; year-to-date.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$35,000 to \$39,000.

Distribution • Telco.

Installation/Maintenance/Training • Telco.

Comments • transfers data to Telco's General Cost Allocation system for billing to users or customized to interface with existing user billing software; central control over remote locations.

General Cost Allocation (GCA)

Function • call accounting.

Computers/Operating Systems • IBM and Honeywell mainframes; VAX, VMS using MVS, VM/CMS, DOS/VSE, and RSX-11M.

Configuration • memory partition required: 37K words • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch • system modifications: vendor • database: user.

System Features • reports produced: network operation management; monthly billing; statement report; monthly trial balance; monthly or quarterly telecom; report comparisons.

Service Bureau Availability • provided.

First Delivery • undisclosed.

Systems Installed • undisclosed.

Average System Cost • \$28,000 single-node; \$37,000 multinode.

Distribution • Telco.

Installation/Maintenance/Training • Telco.

Comments • network management system requires 8K-byte RAM; communications control center can be integrated with this system; compatible with other Telco Research Software.

■ TELEPHONE BUDGETING SYSTEMS, INC

Empire State Building, Suite 6903, New York, NY 10118 • 212-947-7737.

TMS/PC

Function • call accounting • traffic optimization • directory system • telephone equipment inventory.

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory, Telephone Directory & Resale of Telecom Services

Computers/Operating Systems • IBM PC/XT; PC-DOS; MS-DOS.

Configuration • memory partition required: 256K bytes • peripherals required: 10M-byte hard disk; CRT/keyboard; printer.

System Parameters • mode of operation: batch or online • system modifications: none • database: user and vendor.

System Features • reports produced: full range provided • optional reports: directory module; traffic analysis module; traffic optimizing module.

Service Bureau Availability • provided.

First Delivery • June 1984.

Systems Installed • over 45.

Average System Cost • \$7,500.

Distribution • direct sales; authorized distributors.

Installation/Maintenance/Training • Telephone Budgeting Systems.

Comments • family of 6 modules: CRM/PC for recording/polling; CAM/PC for call accounting; TDM/PC for directory; TAM/PC for traffic analysis; TOM/PC for traffic optimization; EIM/PC for equipment inventory.

■ UNITED TECHNOLOGIES TELCOM MIS

8049 West Chester Pike, Upper Darby, PA 19082 • 215-853-4850.

□ Telephone Accounting Management System (TAMS)

Function • call accounting • network design.

Computers/Operating Systems • IBM/IBM-compatible main-frame using DOS or OS.

Configuration • memory partition required: 420K words • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: batch • system modifications: vendor/user • database: user.

System Features • reports produced: year-to-date history; audit trail; call ID summary; frequently called numbers; activity by WATS area and NPA; call distribution detail; call summary—area code.

Service Bureau Availability • provided.

First Delivery • 1981.

Systems Installed • 15.

Average System Cost • \$26,000.

Distribution • Telcom MIS.

Installation/Maintenance/Training • Telcom MIS.

Comments • accepts Telco credit card tape; complete allocation of common equipment and other credits.

■ WINSOURCE, INC

5 Northway Lane North, Latham, NY 12110 • 518-783-1336.

□ Wincall

Function • directory system • message center system • maintenance recording and reporting system.

Computers/Operating Systems • CP/M-based machines using CP/M, CP/M-86, MP/M, MP/M-86.

Configuration • memory partition required: 64K words • peripherals required: CRT; disk; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: vendor.

System Features • reports produced: extension; department; division; company; exception; graphics; directory; messaging.

Service Bureau Availability • not provided.

First Delivery • 1982.

Systems Installed • 20.

Average System Cost • \$1,995.

Distribution • Winsource.

Installation/Maintenance/Training • Winsource/vendor documentation.

■ WOLF DATA SERVICES, INC

9 East 10th Street, Holland, MI 49423 • 616-396-3006.

□ Autoserv-Telcom

Function • management system for interconnect companies; includes A/P and A/R, payroll, financial reporting, inventory, proposal preparation, proposal tracking, job costing and control, sales order entry, tracking and dispatching.

Computers/Operating Systems • Datapoint 8600/8800/6600 using RMS; IBM PC/PC compatibles using MS-DOS.

Configuration • memory partition required: 128K bytes • peripherals required: 40M-byte disk (Datapoint); 10M-byte (PC); CRT; printer.

System Parameters • mode of operation: batch; interactive • system modifications: if source code is bought • database: customer.

System Features • reports produced: 30, including job billing and invoice prep, job master file maintenance, service personnel file maintenance, proposal forms, installed equipment files, and full financial reporting.

Service Bureau Availability • not provided.

First Delivery • 1982.

Systems Installed • over 20.

Average System Cost • \$5,000 to \$20,000.

Distribution • Wolf Data Services.

Installation/Maintenance/Training • Wolf Data Services.

■ XIOX CORPORATION

1720 South Amphlett Boulevard, Suite 120, San Mateo, CA 94402 • 415-571-7911.

□ Tele-TIMES

Function • call accounting • traffic optimization.

Computers/Operating Systems • IBM PC, PC/XT, PC/AT using PC-DOS and Top View (concurrent operations).

Configuration • memory partition required: 256K bytes (PC-DOS); 512K with PC-DOS and Top View • peripherals required: 2 diskette/hard disk drives; printer.

System Parameters • mode of operation: batch, interactive, multitasking • system modifications: user • database: dealer or user.

System Features • reports produced: up to 45 detail reports; up to 25 summary reports • optional reports: custom reports developed by user.

Service Bureau Availability • not provided.

First Delivery • July 1984.

Systems Installed • over 20.

Average System Cost • \$2,875 to \$10,925.

Distribution • authorized dealers and distributors.

Installation/Maintenance/Training • dealer installation and support.

Comments • annual subscriptions for tariff tables range from \$180 to \$800; 12-month support contract for system.

□ Pro-TIMES

Function • call accounting for professionals who charge back telephone expenses.

Computers/Operating Systems • IBM PC, PC/XT, PC/AT, or

Telecommunications Software Systems

Software Products for Call Accounting, Traffic Optimization, Equipment Inventory, Telephone Directory & Resale of Telecom Services

PC compatibles using PC-DOS, MS-DOS; Top View for concurrent operations.

Configuration • memory partition required: 256K bytes for PC-DOS/MS-DOS; additional 64K bytes for text-merge; 512K bytes required with Top View • peripherals required: 2 diskette/hard disk drives; CRT; printer.

System Parameters • mode of operation: batch, interactive, multitasking • system modifications: user • database: dealer or user.

System Features • reports produced: 6 standard reports; 4 summary reports; 10 detail reports • optional reports: custom reports developed by user.

Service Bureau Availability • not provided.

First Delivery • March 1984.

Systems Installed • over 15.

Average System Cost • \$2,875 to \$7,475.

Distribution • authorized dealers and distributors.

Installation/Maintenance/Training • dealer installation, training, and support.

Comments • annual subscriptions for tariff tables range from \$180 to \$800; 12-month support contract for system.

PhoneChek

Function • call accounting • traffic optimization.

Computers/Operating Systems • IBM PC, PC/XT, PCjr, PC compatibles using MS-DOS.

Configuration • memory partition required: 128K bytes • peripherals required: CRT; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: user.

System Features • reports produced: over 24, similar to those produced by Tele-TIMES.

Service Bureau Availability • not provided.

First Delivery • 1985.

Systems Installed • over 30.

Average System Cost • \$279.

Distribution • Xiox; authorized distributors.

Installation/Maintenance/Training • Xiox.

Comments • low-cost system for call accounting; database entered manually from phone bills.

Tele-SHARE

Function • multitenant resale.

Computers/Operating Systems • IBM PC/XT, PC/AT using MS-DOS, AT&T PC 6300 using MS-DOS.

Configuration • memory partition required: 128K bytes • peripherals required: 20M-byte disk; CRT; printer.

System Parameters • mode of operation: interactive • system modifications: vendor • database: vendor; user.

System Features • reports produced: cost allocation.

Service Bureau Availability • not provided.

First Delivery • July 1985.

Systems Installed • under 10.

Average System Cost • \$9,200 (500 stations) to \$16,100 (4,000 stations).

Distribution • authorized dealers (25 so far).

Installation/Maintenance/Training • dealers.

Comments • 90-day warranty; 1-year support contract; annual tariff tables subscription service—\$400 to \$1,400; installation cost—\$350.

• END

