

EXHIBIT A - SCOPE OF WORK

- 7.1.2.1 Maintain a 24/7 Technical Assistance Center utilizing a computerized dispatch system for monitoring and managing system alarms. The system shall be capable of tracking all events related to service requirements and provide progressive management escalation based on the agreed service levels until resolved. Contractor shall utilize this system to perform root cause analysis to (1) identify the cause of all sub-standard performance events, (2) take corrective action, (3) provide HAS electronic text message or email with each alarm and a monthly report detailing the cause, and (4) specify steps taken to preclude such events in the future.
- 7.1.2.2 Respond to Emergency Service Requests. Contractor's failure to meet the Response Times in Section 7.2.1 is an indication of sub-standard performance and will cause damage to the City; however, such damages cannot be accurately measured or will be difficult to ascertain. Consequently, the Contractor shall provide out of service credits, at the rate agreed by both parties, every time the Contractor exceeds the Response Times set forth in Section 7.2.1. The assessment of out of service credits by the City for failure to meet the Response Times in section 7.2.1 shall never be construed as an exclusive remedy available to the City as to any other event of default by Contractor under this Agreement, and the City shall always have the right to avail itself of other remedies that may be available to it in law or equity as to any other event of default.
- 7.1.2.3 Ensure safe and uninterrupted Airport operations at all times. It is essential that the communications system be maintained in a manner that will ensure there are no Major Failures of the communication system, especially during Normal Business Hours. Major Failures during Normal Business Hours is an indication of sub-standard performance and will cause damage to the City; however, such damages cannot be accurately measured or will be difficult to ascertain. Consequently, Contractor shall provide out of service credits at the rate of ten (10%) percent of the current monthly Basic Services Fee (labor and material) for the first hour when any of the Major Failure criteria occurs during Normal Business Hours and five (5) percent per hour thereafter. The out of service credits for Major Failures after Normal Business Hours shall be 1/2 of the rates for Major Failures during Normal Business Hours. The assessment of out of service credits by the City for Major Failures shall never be construed as an exclusive remedy available to the City as to any other event of default by Contractor under this Agreement, and the City shall always have the right to avail itself of other remedies that may be available to it in law or equity as to any other event of default.
- 7.1.2.4 Repeated failures of the same component is an indication of sub-standard performance which may result in Major and Minor Failures causing damage to the City; however, such damages cannot be accurately measured or will be difficult to ascertain. Contractor shall provide out of service credits at the rate agreed by both parties in the event three (3) Minor Failures occur within a ninety (90) day period due to the failure of the same component. The assessment of out of service credits by the City for repeated failures of the same component shall never be construed as an exclusive remedy available to the City as to any other event of default by Contractor under this Agreement, and the City shall always have the right to avail itself of other remedies that may be available to it in law or equity as to any other event of default.

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7.2 Response Times

7.2.1 In addition to its other responsibilities set forth herein, Contractor shall respond to all Emergency or Urgent Service Requests within the following Response Times. The determination of the request classification shall be in the sole judgment of the Director and/or designee. Contractor shall provide HAS with updated on-call lists when on-call schedule is changed.

<u>Service Classification</u>	<u>Response Time (not to exceed)</u>
7.2.1.1 Major Failure during Normal Business Hours	Fifteen(15) Minutes
7.2.1.2 Major Failure after Normal Business Hours	Two (2) Hours
7.2.1.3 Minor Failure or Non-critical Failure After Normal Business Hours	Four (4) Hours
7.2.1.4 Minor Failure or Non-critical Failure After Normal Business Hours	Six (6) Hours

7.3 Cabling Services Requirements

7.3.1 Any cabling services that may be required as a part of Basic Services or Other/Work Services shall comply with the following:

7.3.1.1 Contractor shall adhere to the HAS Technology Specifications as specified in Houston Airport Technology Specifications located on HAS SharePoint website. The specifications are subject to change by HAS periodically to maintain current technology specifications. Contractor is required to comply with changes to the HAS Technology specifications within 30 days of notice of revisions. "Notice of revisions" shall be accomplished by way of posting revised electronic documents to designated areas within the HAS data network or on HAS web site, and will be posted with revision dates. Contractor shall have access to these areas, and must proactively verify Contractor is using the most current specifications each time new cabling, conduit, or equipment is installed.

7.3.1.2 The Contractor shall provide the certified Systimax warranty certificates for all new inside plant cabling installations.

7.3.1.3 Pull strings shall be left in all conduits for future cable/wire runs.

7.3.1.4 Voice cable distribution shall terminate on 110 blocks. However, upon receipt of written notice from the Director and/or designee, the voice cable terminations may change in the future to patch panels. Data [station] cables shall terminate in patch panels.

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- 7.3.1.5 Each newly constructed or rewired workplace shall be cabled and terminated with a minimum of eight pairs using two, four pair cables in separate sheaths with appropriate terminations as specified in the Houston Airport Systems Technology Specifications located on HAS SharePoint website.
- 7.3.1.6 New communications cabling may not lay loose above ceiling tiles. At a minimum, cables shall be supported by cable tray, or conduit, as approved by the Director and/or designee.
- 7.3.1.7 New communications cabling may not lay loose above ceiling tiles. At a minimum, cables shall be supported by cable tray, or conduit, as approved by the Director and/or designee.
- 7.3.1.8 The acceptance of any material, workmanship or equipment by HAS personnel shall not preclude the subsequent rejection of such items by the Director and/or designee, should such items be found defective, as determined by the Director and/or designee.
- 7.3.1.9 All outside plant cable shall be buried to a depth of at least 48 inches, in conduit encased by concrete, and which does not interfere with other utilities or surface operations of HAS. Refer to HAS Underground Duct bank Specifications - Houston Airport System Technology Specifications located on HAS SharePoint website.
- 7.3.1.10 Any other method of cable installation must be approved in advance and in writing by the Director and/or designee.
- 7.3.1.11 Bend radius shall not exceed the manufacturer's specifications. No more than two-90 degree bends shall be placed in any cable pull between pull box locations.
- 7.4 **Cable Records and Documentation**
- 7.4.1 The Contractor shall establish a final written and electronic set of cable records, for Basic Service and OSR projects, as required by the Director and/or designee and shall provide it within 15 days of HAS acceptance (i.e. substantial completion) of each cable installation. These cable records shall include, but are not necessarily limited to, cable schedules, test results, and AutoCAD drawings showing all cable paths and labels. Cable records shall be submitted in a format specified by HAS. Upon review/approval of the data, Contractor personnel may be required to populate the cable record data into HAS's existing cable management system, Network Engineer.
- 7.4.2 The Contractor shall record GPS data in accordance with HAS GIS standards for outside plant cabling and associated structures (i.e. handholds, splices, etc.).
- 7.4.3 At the time of installation cabling shall be labeled at each end, at all access points, and every fifty feet.

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7.5 Cable Testing and Acceptance

7.5.1 Contractor shall perform pre-construction tests on the outside cable plant with a representative of HAS present. Testing shall include, but not be limited to, tests for shorts, grounds, sheath continuity, and conformance to Houston Airport System Technology Specifications located on HAS SharePoint website, and acceptance to meet manufacturer's standards.

7.6 Software Issues

7.6.1 Upgrades

7.6.1.1 Software upgrades to the System shall be implemented at the City's direction. Contractor shall propose schedule to upgrade the PASS Plus-supported applications at least annually.

7.6.1.2 Contractor shall keep the System current with any internal and national (area code) dialing plan changes as they occur.

7.7 Technology Specifications

7.7.1 The Contractor agrees to meet or exceed HAS's standards, now or hereinafter in effect as same may be amended at any time, which are referenced in Houston Airport System Technology Specifications located on HAS SharePoint website.

7.7.2 In the event that any conflict arises between the provisions of the Scope of Work and HAS Technology Specifications, the provisions of the Technology Specifications shall govern. Contractor shall adhere to revised standards within 30 days of posted revisions as stated in 7.3.1.

8.0 CONTRACTOR STAFF QUALIFICATIONS

8.1 All of Contractor's PBX technicians shall have a minimum of 5 years of experience and certification as specified in Section 3.1.6 and certified in the maintenance routines required to diagnose, service, and repair the Telecommunication System. This shall include, but not be limited to, the following:

8.1.1 Current PBX hardware and software releases.

8.1.2 Current Voice Mail hardware and software releases.

8.1.3 Data networking as it pertains to implementing and supporting VoIP products.

8.1.4 Any future PBX and/or Voice Mail hardware/software application acquired during the term of this Agreement.

8.1.5 Any existing or future ancillary equipment such as digital announcers, crash alarm systems, maintenance administration tools, music-on-hold interfaces, PA system interfaces, etc.

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- 8.1.6 Cabling Services sub-contractors must be current Systimax Prestige or Elite Partner and must be capable of providing numbered warranty/registration certificates for cabling installations. All of the Contractor's Cabling technicians shall be properly trained as specified in Houston Airport System Technology Standards. HAS reserves the right to request that the Contractor change the cabling services sub-contractors at any time.
- 8.1.7 All Cabling Services performed under the term of this agreement shall be inspected and approved by the Director and/or designee. The Director and/or designee will not approve payment for any cabling services where quality, scope or workmanship issues are not resolved promptly.
- 9.0 **PERSONNEL OF CONTRACTOR**
- 9.1 Personnel Requirements
- 9.1.1 The Contractor shall provide sufficient personnel to meet the performance requirements of this Agreement. The following full-time on-site staff will be required to perform the Basic Services specified
- 9.1.1.1 On-Site Coordinator/Administrative Coordinator- HAS - All Locations.
- 9.1.1.2 Two (2) Systems Support Specialist - HAS - All Locations.
- 9.1.1.3 Two (2) Communications Technician – HAS – IAH.
- 9.1.1.4 One (1) Communications Technician - HAS – HOU/EFD.
- 9.1.1.5 One (1) Communications Technician Assistant - HAS – IAH.
- 9.1.1.6 One (1) Communications Technician Assistant - HAS – HOU/EFD.
- 9.1.1.7 Two (2) Cabling Technicians – HAS – All Locations.
- 9.1.2 The Contractor shall designate in writing to the Director and/or designee an On-site Coordinator for this Agreement. Such On-site Coordinator must be approved in writing by the Director and/or before commencing performance herein. The Contractor's On-site Coordinator shall be available at all times during the performance of Contractor's obligations under this Agreement.
- 9.1.2.1 The Contractor's On-site Coordinator shall have full authority to represent the Contractor in making decisions and in the execution of the services to be performed under the Agreement.
- 9.1.2.2 The On-site Coordinator shall not be removed from performing under this Agreement by Contractor without the prior written consent of the Director and/or designee. The Director and/or designee shall have the right to approve or disapprove any successor On-site Coordinator prior to performance under this Agreement.

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- 9.1.3 The Contractor's designated on-site technicians shall be fully qualified to maintain the Telecommunication Systems and shall hold Certified Technician Certificates issued by Avaya/Nortel and any other manufacturer whose equipment, software, materials or parts comprise a part of the Telecommunication System. Certificates must reflect training specifically for the hardware and software components described in this Agreement.
- 9.1.3.1 The Contractor's technicians (one at IAH and one at HOU) are expected to remain on-site in the event of emergency, including, but not limited to, hurricanes, tornadoes, floods, natural disasters, etc. These technicians should have an HAS badged and be familiar with day to day operations. Labor rate shall be in accordance with Other Work/Services fee schedule for the event year.
- 9.1.4 Any sub-contractor personnel required to perform cabling services shall be certified and trained by Systimax to install the Systimax products specified in Houston Airport System Technology Specifications located on HAS SharePoint website.
- 9.1.5 Copies of all applicable certifications shall be provided to the Director and/or designee prior to commencement of work by a technician. Resumes of the Contractor's On-site Coordinator and technicians performing work under this Agreement shall be submitted to the Director and/or designee prior to beginning work and from time to time under this Agreement. Such resumes shall include a listing of all vendor certifications held, technical school courses and seminars, and other technical experience of each technician.
- 9.1.6 Further, the Contractor on or before the start date specified in the Notice to Proceed, shall assign in writing the certified technicians, system support specialists, cable technician, and helper technicians, dedicated solely to this Agreement. Such technicians shall have no other employment obligations to Contractor or other third parties, and must be approved in writing by the Director and/or designee before commencing performance herein. The designated certified technicians shall be on-site at the assigned Airport locations during Normal Business Hours and shall not be removed by Contractor from performing under this Agreement without the prior written consent of the Director and/or designee.
- 9.1.6.1 The Director and/or designee shall have the right to approve or disapprove any successor on-site certified technician(s) prior to their performance under this Agreement.
- 9.1.6.2 Upon written request of the Director and/or designee, Contractor shall provide additional technicians on an "as-needed" basis per the pricing in Exhibit B - Fee Schedule.
- 9.1.6.3 Although the dedicated on-site Communications Technician and Communications Technician Assistant technicians will be assigned primary Airport locations, HAS reserves the right to utilize any/all-dedicated technicians at any/all HAS locations.
- 9.1.6.4 Contractor shall furnish adequate certification papers and documentation of on-site personnel qualifications and must obtain the written approval of the Director and/or designee prior to on-site assignment under this Agreement.
- 9.1.6.5 Resumes shall be updated by Contractor annually on the agreement anniversary date throughout the Term of the Agreement.

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- 9.1.7 The Contractor may change personnel only with equally qualified personnel and then only after obtaining the Director and/or designee written approval.
- 9.1.8 The Contractor shall replace any personnel assigned to provide services under this Agreement whose work product or conduct is not satisfactory to the Director and/or designee.
- 9.1.9 All personnel assigned to this Agreement by Contractor will be required to have the company's uniform. The Contractor's personnel will present a clean and neat appearance at all times.
- 9.1.10 The Contractor technicians will be expected to work in accordance with the City holiday schedule rather than Contractor's holiday schedule at no additional cost. Substitute technicians must be approved in advance and assigned to accommodate normal onsite technician absences due to training, vacation, Contractor holiday, etc.
- 9.1.11 The Contractor shall make arrangements for primary on-site Communication technicians and Cabling Services technicians to be on-call 24 hours per day, 7 days per week, 365 days per year, (including all City holidays) to respond to urgent/emergency telecommunications outages and OSRs. When primary on-site Communications technicians or Cabling Services technicians are not available, Contractor must provide an equally qualified certified technician, and must inform HAS in advance.
- 9.1.12 The Contractor shall make arrangements for a sub-set of "standby", equally qualified substitute technicians who may be called upon to fulfill the duties of assigned on-site technicians during vacations, training, or absences due to illness. Substitute technicians must hold valid HAS badges for the respective airports, and must be included in the airport familiarization process. Contractor may not substitute technicians who are unfamiliar with the airport facilities, tenants, and personnel.
- 9.1.13 The Contractor shall provide HAS with an Organization Chart complete with names and resumes for each position on the Chart.
- 10.0 SUB-CONTRACTORS**
- 10.1 The Contractor may use only sub-contractor's approved in writing and in advance by the Director and/or designee in connection with the performance of work under this Agreement. Resumes of sub-contractor's technicians performing work under this Agreement shall be submitted to the Director and/or designee prior to beginning work and from time to time under this Agreement. Contractor shall be fully liable to the City for any damages caused by the intentional or negligent acts or omissions of its sub-contractor and shall be responsible for making all payments to sub-contractors for materials and/or services.
- 10.2 Sub-contractor's approved to perform work under this Agreement shall not be removed from work by Contractor without prior written consent of the Director and/or his designee.

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11.0 TRAINING

- 11.1 The Contractor technicians shall receive training prior to implementing any upgrades to the PBX, Voice Mail, or ancillary systems. The cost of such training shall be included in the ongoing maintenance costs of the City's Equipment set forth in Exhibit B - Fee Schedule. Additional training, as required by the Director and/or designee, shall be provided by Contractor at no additional cost to the City.
- 11.2 The Contractor shall provide designated HAS personnel with training manuals for any/all new equipment/software and shall train such personnel on PBX console terminology, operation and features.
- 11.3 The Contractor shall train designated HAS personnel, as necessary and as required by the Director and/or designee to function as customer coordinators or trainers to accommodate future projects.

12.0 EQUIPMENT, PARTS, MATERIALS AND INSTRUMENTS

- 12.1 The Contractor shall furnish a Manufacturer's price list for all Avaya CS 1000 hardware/software components, in addition to Avaya digital telephone sets, IP telephones, and all universal analog and ancillary equipment in the Contractor's inventory generally used in conjunction with Avaya CS 1000 platforms All price changes are subject to Director and/or designee approval.
- 12.1.1 The Contractor shall furnish equipment required to perform all specified services in accordance with the applicable Houston Airport System Standards provided in HAS SharePoint website.
- 12.1.2 The Contractor is required to develop a spare parts inventory sufficient to maintain the highest levels of performance and maintain uninterrupted services at the airports, the Partial On-Site Spares List in shown in Exhibit D. Maintenance Vendor is responsible for determining additional requirements for each location to ensure SLA's are met for Preventive Maintenance as stated in Section 3.2 and Remedial Maintenance as stated in Section 3.3 of this Exhibit "A".
- 12.2 The Contractor shall provide current revised equipment lists to incorporate product number changes as well as new products. Price list(s) shall be submitted on electronic media in ASCII, comma-delimited format.
- 12.3 All equipment, parts, and/or components replaced or newly installed in the Telecommunication System by the Contractor shall be factory new and free of defects in title, materials and workmanship at the time of their delivery and installation. Each component of the Telecommunication System shall conform to the specifications published by the manufacturer of the component. HAS reserves the right to request or permit the substitution of rebuilt or reconditioned parts, but such substitutions will not be used without the prior express written consent of the Director and/or designee and/or designee .

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- 12.4 In addition to any other warranty provisions, at any time during the Term of this Agreement or any extensions thereto, if a specific part or component requires in excess of three (3) maintenance calls within one (1) month, Contractor shall replace the defective part or component at Contractor's expense.
- 13.0 EQUIPMENT, PARTS, SUPPLIES AND INSTRUMENTS PRICING**
- 13.1 All equipment, parts, supplies, and instruments required to complete all Preventive and Remedial Maintenance for Basic Services for any newly installed Contractor supplied item, are to be provided at no additional cost to the City.
- 13.1.1 Preventive and Remedial Maintenance are included in the Basic Services PBX Maintenance Per-Port Agreement portion of this Agreement. No additional amounts will be paid to the Contractor for any parts, supplies, or equipment used for Preventive or Remedial Maintenance of the System.
- 13.1.2 Prices for equipment, parts, and supplies, which may be required for authorized Other/Work Services Requests, for which prices are not otherwise established herein, shall be based on the percentage of discount or mark-up stipulated in Exhibit B - Fee Schedule, as applied to the current price list(s) of the manufacturers listed below. Throughout the term of the contract the Contractor shall base pricing upon the manufacturer's current price list at the time of the proposed purchase. Contractor must supply current manufacturer price list(s) – or links to the manufacturer's published lists – upon request by HAS for the purpose of verifying Contractor's charges.
- 13.1.3 Avaya (Nortel), Inc.
- 13.1.3.1 55% discount off of MSRP for PBX equipment, including core equipment, IPE modules, station and trunk cards, and similar hardware.
- 13.1.3.2 38% discount off of MSRP for software, telephones, PBX cables, DC power equipment, applications such as Call Pilot or Contact Center Manager 7.0, etc.
- 13.1.3.3 13.5% discount off of MSRP for User's Guides, literature and like items.
- 13.1.4 Cisco Systems, Inc.
- 13.1.4.1 40% discount off of Cisco published list price
- 13.1.5 Systemax
- 13.1.5.1 Systemax product discounts shall be according to the sub-contractor specific discounts.
- 13.1.6 Ceeco
- 13.1.6.1 Ceeco products shall be priced at 5% markup over cost as specified in the Fee Schedule – Exhibit B.

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13.1.7 Cabling Services – Flat Rate for horizontal cabling

13.1.7.1 Contractor agrees to provide one (1) 2071 Cat 6 Systimax cable with faceplate, jack and label. The flat rate price listed below is based on an average 225-foot cable. Pricing includes Cat 6 cable, faceplate, jack, label, and labor. Flat rate for horizontal cabling is \$230.00 per drop using existing cable supports, existing patch panel, single port face plate, one 5-foot patch cord, and one 10-foot patch cord. This price is good for the first 12 months of the contract, and shall be re-negotiated each 12 months for contract Years 2, 3, and if exercised, Years 4 and 5. The labor component of the annually re-negotiated price may not exceed 3.9% increase per year, and the material component may not exceed cost plus proposed in the fee schedule. Contractor must submit documentation from Systimax that reasonably substantiates both Contractor cost and overall market pricing conditions.

14.0 TEST EQUIPMENT

14.1 The Contractor and cabling services sub-contractor shall furnish and maintain adequate quantities and types of on-site test equipment as required for diagnostics and repairs at all HAS facilities. The Contractor shall be responsible for calibrating, repairing, and maintaining test equipment in a First Class Condition throughout the Term of this Agreement and any extensions thereto. At Agreement expiration or termination, Contractor shall remove all Contractor -provided test equipment from Airport premises. By way of example and not by way of limitation, the required test equipment includes, but is not limited to, the following:

14.1.1 Fiber/Copper Test Equipment.

14.1.1.1 Fiber optic OTDR.

14.1.1.2 Fiber optic connector inspection scope.

14.1.1.3 Fiber optic cable tracer.

14.1.1.4 Fiber optic talk set.

14.1.1.5 Fiber optic power and light source.

14.1.1.6 Cable fault locator.

14.1.1.7 Power multimeter.

14.1.1.8 Wire finder.

14.1.1.9 Thermometer- digital Voice/data transmission tester.

14.1.1.10 Transmission loop tester.

14.1.1.11 Special service signal tester.

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- 14.1.1.12 Loop current alternator.
- 14.1.1.13 Telephone line analyzer.
- 14.1.1.14 Tone test set.
- 14.1.1.15 Line aid inductive amplifier.
- 14.1.1.16 Load coil detector.
- 14.1.1.17 Tone tracker.
- 14.1.1.18 Craft test set.
- 14.1.1.19 Protector ground test kit.
- 14.1.1.20 Voice network analyzer.
- 14.1.1.21 Ground impedance tester.
- 14.1.1.22 Ground check tester.
- 14.1.1.23 Open fault meter.
- 14.1.1.24 Fiber optic multiplexed test equipment.
- 14.1.2 Data Test Equipment.
 - 14.1.2.1 Status indicators.
 - 14.1.2.2 Wire analyzer.
 - 14.1.2.3 Cable scanner.
 - 14.1.2.4 Pair scanner.
 - 14.1.2.5 Data check.
 - 14.1.2.6 Data tracker.
 - 14.1.2.7 Data communications test set.
 - 14.1.2.8 Data analyzer.
 - 14.1.2.9 Link tester.
 - 14.1.2.10 Ethernet line tester.

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- 14.1.2.11 Bit error rate tester.
- 14.1.2.12 Data communications analyzer.
- 14.1.2.13 Video conferencing test equipment.
- 14.1.2.14 Ladders, flashlights, screwdrivers, and other equipment necessary to gain access to areas where cabling may be installed, tested, or damaged
- 14.1.3 The Contractor shall provide proof of the above equipment to be stored at both IAH and HOU facilities, to be used exclusively for the HAS agreement, and all other test equipment not listed above should it be required to properly maintain the Telecommunication System. All Contractor technicians shall be properly trained and certified on all diagnostic and test equipment.
- 15.0 **COORDINATE PERFORMANCE**
- 15.1 **HAS Contacts**
- 15.1.1 The Contractor shall coordinate all of its performance with such person(s) as the Director and/or his designee designates in writing to the Contractor. The Contractor shall keep said person(s) currently advised of developments relating to the performance of this Agreement, and the Contractor shall at all appropriate times advise and consult with the Director designee(s). Representative(s) of HAS may remain with Contractor's personnel during performance of any work or services required under this Agreement.
- 15.2 **Pre-performance Conference**
- 15.2.1 Prior to commencing performance under this Agreement, Contractor shall attend a pre-performance conference with the Director and/or designee and other representatives of HAS. The Director and/or designee shall specify the time and place of such meeting in a written notice to Contractor. Representatives of Contractor attending the pre-performance conference shall include, but not be limited to, the on-site certified technician(s) (as hereinafter described) whom Contractor has assigned to this Agreement, together with the On-site Coordinator (as hereinafter described) who is authorized to bind Contractor in matters relating to the following pre-performance conference items. In the above mentioned notice, the Director and/or designee shall have the right, in his sole discretion, to further designate other representatives of Contractor who must attend the pre-performance conference and such designated representatives shall attend same. Items to be addressed at the pre-performance conference include, but are not limited to, the following:
 - 15.2.1.1 Phase-In schedule from incumbent Contractor to new Contractor.
 - 15.2.1.2 Work scheduling.
 - 15.2.1.3 Agreement administration.
 - 15.2.1.4 Facilities utilization.

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- 15.2.1.5 Channels of communication.
- 15.2.1.6 Maintenance requirements.
- 15.2.1.7 Logistical management of Contractor furnished supplies and equipment.
- 15.2.1.8 Implementation of additional procedures to ensure Agreement is performed in accordance with its terms.
- 15.3 Coordination Meetings.
- 15.3.1 Throughout the Term of this Agreement and any extensions hereto, Contractor shall meet with the Director and/or designee, as deemed necessary, to identify and resolve performance issues. Notice of any such performance meeting may be given by the Director and/or designee to Contractor either orally or in writing and shall designate the time, date, location, Contractor attendees, and general purpose. Contractor's designated attendees shall be present at any such performance meeting for its duration and shall prepare minutes. The meeting minutes shall be transcribed by Contractor in typewritten form and shall be submitted to the Director and/or designee for approval within five (5) days of any such meeting.
- 15.3.2 The Director and/or his designee shall have the right to dispute the accuracy of the minutes and shall so note the discrepancies in the minutes prior to his approval. Once approved, the original will be retained by HAS and a copy thereof shall be submitted to Contractor.
- 16.0 **PHASE-IN/PHASE OUT SERVICES**
- 16.1 **CONTRACTOR 'S PHASE-IN –**
- 16.1.1 Contractor (at no extra charge to the City) shall have up to a thirty (30) day phase-in period to accomplish a smooth and successful transition of operations and services. Contractor's Phase-in period shall begin upon receipt of a start phase-in notice from the Director and/or designee (such notice not to be construed as an official Notice to Proceed, but being anticipatory of phase-in only) and shall last approximately thirty (30) days preceding the receipt of Notice to Proceed.
- 16.1.2 The incumbent Contractor will be responsible for performing the duties and services listed in its contract during Contractor's Phase-in period, and will be available for a maximum of 30 days to answer questions and resolve issues or any misunderstandings.
- 16.1.3 During the Phase-in period, Contractor shall arrange to have necessary supervisory, technical, and other personnel on site to observe the operation and maintenance of the equipment.
- 16.1.4 The Contractor may use this Phase-in period to recruit and transfer personnel, train personnel, arrange for security badging, establish management procedures, set up records, ensure adequate parts, tools and equipment are in place for systems operation and maintenance, and otherwise prepare for the assumption of technical control without disruption of operations.

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- 16.1.5 During the Phase-in Period, it shall be the responsibility of Contractor to develop and implement a full project schedule detailing the responsibilities of assigned personnel and submit it to HAS for approval. Contractor will have no responsibilities for operating or maintaining the systems or equipment during the Phase-in period.
- 16.1.6 The Phase-in period will end on the start date specified in the official Notice to Proceed, at which time Contractor shall assume full responsibility for the maintenance of the systems and equipment.
- 16.2 CONTRACTOR'S PHASE-OUT –
- 16.2.1 The Contractor recognizes that the services provided by the Contract are vital to the City's overall efforts to provide first-class communication systems which are essential for safety and uninterrupted Airport services and that continuity thereof must be maintained at a consistently high level without interruption; that upon expiration of the Contract a successor may continue these services; that its successor Contractor will need Phase-in training; and that Contractor must cooperate in order to effect an orderly and efficient transition.
- 16.2.2 Accordingly, Contractor will be required to provide Phase-out services for up to thirty (30) days prior to contract expiration to its successor Contractor at no extra charge to the City.
- 16.2.3 Orientation may include system operations and maintenance procedures, record keeping, reports, and procurement procedures, etc.
- 16.2.4 The Contractor shall be totally responsible for providing the services called for by the Contract during its Phase-out period.
- 16.2.5 The Contractor agrees to cooperate with its successor Contractor in allowing as many personnel as practical to remain on the job in order to enhance the continuity and consistency of the services in the Contract.
- 16.2.6 The Contractor agrees to disclose necessary personnel records and allow its successor to conduct on-site interviews with its employees, provided Contractor obtains the consent of said employees to disclose their records and to conduct such interviews and provided such disclosure and interviews are conducted in accord with all applicable laws, statutes, rules, regulations, and ordinances which have been passed, enacted or promulgated by any governmental body having jurisdiction over such matters.
- 17.0 EQUIPMENT CONDITION AT EXPIRATION
- 17.1 The Contractor shall turn over all equipment and systems in First Class Condition. Any item not operating in accordance with its required function shall be repaired or replaced. Preventive maintenance work shall have been performed as required per the PM schedule.
- 17.2 Within six (6) Months of expiration of the Agreement Term, Contractor shall inspect and test all equipment and repair or replace any equipment or components in accordance with findings in the inspection and test.

EXHIBIT A - SCOPE OF WORK

- 17.3 Within sixty (60) days of expiration of the Agreement Term, Contractor shall perform a complete inspection of all controls and instrumentation. Any item outside First Class Condition shall be corrected.
- 17.4 Within thirty (30) days of expiration of the Agreement Term, Contractor shall adjust all systems equipment and complete spare parts inventory and report. Contractor shall provide HAS a complete final report on the condition of all systems and equipment, including inspection and test reports, and certified statements signed by an agent of Contractor testifying to the First Class Condition of all equipment and systems.
- 17.5 HAS shall have the right of inspection during or after any of this work, and shall notify Contractor, within seven (7) calendar days of receipt of Contractor's certified statement, of any noted discrepancies. Contractor shall then proceed to correct any discrepancies within or after the end of the Agreement Term as required to complete the work. Contractor shall complete all work within thirty (30) days and notify the Director and/or designee in writing upon completion of all work. Contractor shall assist HAS with any inspections required by the Director and/or designee at no additional cost to HAS.
- 17.6 Should Contractor fail to perform or complete any required work prior to expiration of the Contract, HAS may have such work performed at Contractor's expense.
- 17.7 Contractor shall assure that all equipment is in First Class Condition at the expiration or termination of the Agreement.
- 18.0 SECURITY AND BADGING**
- 18.1 Contractor shall comply with all applicable Federal rules governing security at the Airport, as may be amended from time to time.
- 18.2 All on-site personnel of Contractor, including subcontractors, are required to undergo a fingerprint-based criminal history records check.
- 18.3 The cost of badges, which is subject to change, is currently \$55.00 each at IAH & HOU, \$15 at EFD. Costs for the fingerprint-based criminal history records check are reflected in the cost of the badges. Contractor must pay for the cost of badges, including replacements thereof. Contractor personnel losing badges will be charged for lost badge in addition to replacement badges at the then current rate.
- 18.4 Contractor acknowledges that fines or penalties associated with non-compliance with security regulations must be reimbursed to HAS.

EXHIBIT A - SCOPE OF WORK

19.0 TRANSPORTATION AND PARKING

- 19.1 The Contractor shall provide a minimum of ten (10) vehicles for their employee's use and shall park its vehicles in areas designated by the Director and/or designee at its own cost, if any. HAS will provide a limited number of vendor parking spaces at no charge. All transportation activities and related costs of Contractor, or its sub-contractors, necessary to perform under this Agreement shall be provided by Contractor. All of Contractor's and its sub-contractor's vehicles shall be clearly identified as required by the Director and/or designee.

20.0 TRAVEL TIME

- 20.1 When required and authorized, the Contractor shall be compensated for other work services required at the rates stipulated in Exhibit B – Fee Schedule for the actual time required to perform the required services after arrival at the job site. Contractor shall not be entitled to compensation for travel time to and from the job site.

21.0 RECORDS AND REPORTS

- 21.1 The Contractor shall submit all reports and records as may be required by the Director and/or designee.

22.0 EQUIPMENT REGISTRATION COMMITMENT

- 22.1 The Contractor shall register any new equipment it provides and/or installs with the manufacturer before the date of acceptance and provide documentation to substantiate the manufacturer's support commitment for the installed equipment.

23.0 HOUSEKEEPING

- 23.1 The very sensitive equipment to be maintained by the Contractor is secured in rooms accessible to a very limited number of authorized personnel having an appreciation of the critical nature of the equipment. Therefore, all Contractor personnel granted access to the rooms shall perform all housekeeping tasks and provide all materials and equipment for cleaning of all such areas and the associated equipment.
- 23.2 If any room is found not to be clean and orderly, the last Contractor that entered the room shall be notified and given 24 hours to resolve and correct the matter. If the room is still not cleaned within such twenty-four hour period, a cleaning fee for each occurrence shall be assessed against the Contractor to enable HAS to have the cleaning accomplished by others.

24.0 BUY-BACK PROGRAM

- 24.1 Throughout the term of this Agreement, the Contractor shall provide a Buy Back Program that allows HAS to exchange obsolete or end-of-life equipment for discounts or credits on future purchases.

EXHIBIT A - SCOPE OF WORK

- 24.1.1 For HAS equipment that are considered obsolete and requires to be sold, Contractor will secure three (3) quotes from their reseller network and present it to HAS for review and selection. Upon HAS selection and decision to sell the equipment, Contractor will perform inventory and de-install, if necessary, pack and ship the equipment to reseller.
- 24.1.2 Proceeds from the sale of equipment will be passed through 100% to HAS in the form of a credit against future services or new equipment purchases under this Agreement.
- 25.0 INNOVATIVE SOLUTIONS**
- 25.1 The Houston Airport System (HAS) is interested in feature-rich cost effective alternatives to the traditional telephony environment. The Contractor shall provide advanced telephony solutions that could include, but are not limited to: Hosted/Virtual PBX, Computer Telephony Integration, VoIP, etc. Advanced technologies should add value, minimize maintenance costs and increase mobile worker capabilities given our existing telecom environment considering our percentage of IP, digital and analog port.
- 25.1.1 Through its extensive technology partner relationships, Contractor has offered HAS a migration path to the latest VoIP technologies available from the top three (3) VoIP market share leaders with Avaya, Cisco, and ShoreTel. These three (3) VoIP market leaders account for 90%+ of the installed VoIP systems in the United States. Contractor guarantees HAS fixed discounts for the term of this Agreement for either a current system upgrade migration through Avaya or complete system migration to either Cisco or ShoreTel technology.
- 25.1.2 Contractor will provide the technical resources to work with HAS designated personnel to determine which of the three manufacturer's technology best meets their current and future needs. In addition, Contractor will work with HAS to design a new network which will provide HAS facilities with the latest technology and feature functionality available.
- 25.1.3 Contractor has secured the following discounts off of MSRP for the term of this Agreement. These discounts apply only to significant engineered expansions and total system migration or change out and are not applicable to piece part orders. Prices for equipment, parts, and supplies, which may be required for authorized Other/Work Services Requests will be priced as stipulated in Exhibit B.
- | | | |
|----------|----------|------------------|
| 25.1.3.1 | Avaya | 52 % off of MSRP |
| 25.1.3.2 | Cisco | 45 % off of MSRP |
| 25.1.3.3 | ShoreTel | 50 % off of MSRP |
- 25.1.4 The offering of providing resources for an optimum system design and fixed equipment discounts for the term of the Agreement, and with Contractor's ability to sell obsolete equipment with all proceeds passed 100% to HAS, will result in HAS executing on the most cost effective method to implement the latest technologies to service the their facilities.

EXHIBIT A - SCOPE OF WORK

HOUSTON AIRPORT SYSTEM / CSE1000E PBX / COUNTS AND CRITICAL AREAS

PBX	Total Analog	Fax	Public Use Courtesy/Elevators	Emergency Defib/ Callbox	ARFF ALERTS/ TSA BREACH	Timeclocks Fire/Security Modems	Paging/ Gates/ Jetbridge	Tenant Use	Other
IAH Terminal D	2,131	21	539	199	78	633	70	499	92
Admin Bldg	579	18	128	72	3	232		126	
Total IAH	2,710	39	667	271	81	865	70	625	92
Hobby	518	28	63	57	25	243	10	85	7
Total HAS	3,228	67	730	328	106	1108	80	710	191

HOUSTON AIRPORT SYSTEM / CSE1000E PBX / COUNTS AND CRITICAL AREAS

LOCATION	Trunk Ports	Centralized VM Ports	PBX Ports	Analog	Digital	IP	Soft Phone	PCA	Call Center Agents	Active VM Menus	Nice Recording Active Ports	Fiber/Carrier Remote
IAH PBX (TERM D MDF)	309	48	3483	2,130	638	248	6	1	57	89	48	7
• EOC (8)				Δ								
• ACC (Com Center/Badging/C-3)						Δ			Δ	Δ	Δ	
• HAS Service Desk						Δ			Δ		Δ	
• Public Service				Δ								
• IP Only - Wright Rd Facility				Δ		Δ						
• Crash Ntwk -ARFF (3)/Tower				Δ	Δ	Δ					Δ	
• TSA Checkpoint					Δ							
• Airlines / Tenants				Δ	Δ	Δ				Δ		
• ARFF 54, 92, 99 (3 sites)				Δ	Δ							Δ (3)
• FIS CARGO				Δ	Δ							Δ (1)
• TERMINALS A/E, FIS Remotes				Δ	Δ	Δ						Δ (3)
ADMIN PBX (16930 JFK MDF)	129		1587	578	585	165	10	5				4
• EOC (6)				Δ								
• Operations				Δ	Δ							
• HPD				Δ	Δ							
• NS Parking				Δ	Δ					Δ		
• Car Rentals				Δ	Δ							
• ARFF (3) backup Crash phone					Δ	Δ						
• ASC Building/Kelsey						Δ						Δ
• Car Rental Facility												Δ
• Terminal A Remote						Δ						Δ
• Purchasing & Warehouse Svcs												Δ
HOBBY PBX (MDF)	104		1099	518	260	119	2	3	9		15	2
• HPD				Δ	Δ							
• ACC (Racom/C3)				Δ	Δ	Δ					Δ	
• Crash Ntwk -ARFF (1)/Tower				Δ	Δ	Δ					Δ	
• Operations				Δ	Δ	Δ						
• FAA Bldg/SR22				Δ	Δ							Δ
• EFD / Carrier Remote				Δ	Δ	Δ						Δ
HAS TOTAL	542	48	6169	3,226	1,483	413	18	9	66	89	63	13

Telecommunication Services CIP Expenditures

Airport Improvement Funds have been appropriated for the services below. Appropriated funds shall not be used for any other purposes. These services are included within this Scope of Work and Exhibit "B" Fee Schedule.

Structured Cabling System: - Scope of Services

Contractor shall provide ongoing / on-demand communications cabling activities across all three airport campuses. Specific examples of how we utilize the CIP funds include:

- To expand the capacity or functionality of the Structured Cabling System Asset.
- The installation of fiber optic or copper backbone cabling between buildings or equipment rooms within a building;
- Addition of copper UTP or coax cabling for voice/data/video devices;
- Upgrade of termination equipment to iPatch, which is an "active" termination that allows us to identify whether the cable is in use and for what purpose.

Structured cabling services will be used with, but not limited to the following upcoming projects below.

Administration Building Office Relocation
IAH UPS Upgrade Monitoring
Taxi Staging Lot
IAH ASC Complex
612 V Aruba Install
Hobby 417 Baggage Claim Project Phase

Note:

- Manufacturer's warranty on the Structured Cabling System – including horizontal cables from IDF to device – is 20 years. This is an asset that is considered to be permanently installed, and by GASB guidelines is often classified as a Building Improvement that is capitalized.

EXHIBIT B - FEE SCHEDULE

SUMMARY

Item	Description	Amount
A	Basic Service - 5 Year Total	\$6,944,014.92
B	Other/Work Services Labor - 5 Year Total	\$3,545,612.00
Five (5) Year Grand Total		\$10,489,626.92

A. Basic Services

Item A-1 (Yr.1)	\$1,319,320.80
Item A-2 (Yr.2)	\$1,350,903.72
Item A-3 (Yr.3)	\$1,393,014.00
Item A-4 (Yr.4 - OPTION YEAR ONE)	\$1,424,596.80
Item A-5 (Yr.5- OPTION YEAR TWO)	\$1,456,179.60
TOTAL BASIC SERVICES YRS 1-5	\$6,944,014.92

B. OTHER WORK/SERVICES (Labor & Materials)

Item B-1 (Yr.1)	\$688,917.00
Item B-2 (Yr.2)	\$698,891.00
Item B-3 (Yr.3)	\$709,321.00
Item B-4 (Yr.4 - OPTION YEAR ONE)	\$719,268.00
Item B-5 (Yr.5- OPTION YEAR TWO)	\$729,215.00
TOTAL OSR (Labor & Materials) YRS 1-5	\$3,545,612.00

EXHIBIT B - FEE SCHEDULE

Flat rate for all labor, supervision, materials, parts, supplies, instruments, tools, equipment, transportation, and software support required to perform all Preventative and Remedial Maintenance and labor for MAC's.

A-1 Year 1

Item	Description	Monthly Fee	Annual Fee
1.00	Site Coordinator/Administrator Coordinator	\$10,317.71	\$123,812.52
2.00	System Support Specialist (2) - All Locations	\$20,234.50	\$242,814.00
3.00	Communications Technician (3) - All Locations	\$31,884.67	\$382,616.04
4.00	Communications Technician Assistant (2) - All Locations	\$15,022.58	\$180,270.96
5.00	Cabling Technician - (2) All Locations	\$10,270.54	\$123,246.48
6.00	Annual Audit	\$1,747.40	\$20,968.80
7.00	PBX Maintenance Per Port	\$20,466.00	\$245,592.00
Basic Services (A-1) Year 1 Total			\$1,319,320.80

A-2 Year 2

Item	Description	Monthly Fee	Annual Fee
1.00	Site Coordinator/Administrator Coordinator	\$10,627.24	\$127,526.88
2.00	System Support Specialist (2) - All Locations	\$20,841.54	\$250,098.48
3.00	Communications Technician (3) - All Locations	\$32,841.21	\$394,094.52
4.00	Communications Technician Assistant (2) - All Locations	\$15,473.26	\$185,679.12
5.00	Cabling Technician - (2) All Locations	\$10,578.66	\$126,943.92
6.00	Annual Audit	\$1,747.40	\$20,968.80
7.00	PBX Maintenance Per Port	\$20,466.00	\$245,592.00
Basic Services (A-2) Year 2 Total			\$1,350,903.72

EXHIBIT B - FEE SCHEDULE

A-3 Year 3

Item	Description	Monthly Fee	Annual Fee
1.00	Site Coordinator/Administrator Coordinator	\$11,039.95	\$132,479.40
2.00	System Support Specialist (2) - All Locations	\$21,650.92	\$259,811.04
3.00	Communications Technician (3) - All Locations	\$34,116.59	\$409,399.08
4.00	Communications Technician Assistant (2) - All Locations	\$16,074.16	\$192,889.92
5.00	Cabling Technician - (2) All Locations	\$10,989.48	\$131,873.76
6.00	Annual Audit	\$1,747.40	\$20,968.80
7.00	PBX Maintenance Per Port Per	\$20,466.00	\$245,592.00
Basic Services (A-3) Year 3 Total			\$1,393,014.00

A-4 Year 4 (Option Year One)

Item	Description	Monthly Fee	Annual Fee
1.00	Site Coordinator/Administrator Coordinator	\$11,349.48	\$136,193.76
2.00	System Support Specialist (2) - All Locations	\$22,257.95	\$267,095.40
3.00	Communications Technician (3) - All Locations	\$35,073.13	\$420,877.56
4.00	Communications Technician Assistant (2) - All Locations	\$16,524.84	\$198,298.08
5.00	Cabling Technician - (2) All Locations	\$11,297.60	\$135,571.20
6.00	Annual Audit	\$1,747.40	\$20,968.80
7.00	PBX Maintenance Per Port Per	\$20,466.00	\$245,592.00
Basic Services (A-4) Year 4 - Option Year One Total			\$1,424,596.80

EXHIBIT B - FEE SCHEDULE

A-5 Year 5 (Option Year Two)

Item	Description	Monthly Fee	Annual Fee
1.00	Site Coordinator/Administrator Coordinator	\$11,659.01	\$139,908.12
2.00	System Support Specialist (2) - All Locations	\$22,864.99	\$274,379.88
3.00	Communications Technician (3) - All Locations	\$36,029.67	\$432,356.04
4.00	Communications Technician Assistant (2) - All Locations	\$16,975.52	\$203,706.24
5.00	Cabling Technician - (2) All Locations	\$11,605.71	\$139,268.52
6.00	Annual Audit	\$1,747.40	\$20,968.80
7.00	PBX Maintenance Per Port Per	\$20,466.00	\$245,592.00
Basic Services (A-5) Year 5 - Option Year Two Total			\$1,456,179.60

EXHIBIT B - FEE SCHEDULE

YEAR ONE - (B-1) - OTHER WORK/SERVICES

Other Work/Services may be required for the Telecommunication Services to meet desired conditions and/or repairs not covered in the Basics Services. Any amounts listed below are estimated amounts for Other Work/Services for each year of the Agreement. The actual dollar amount for Other Work/Services may be higher or lower than the estimates, and the Contractor shall only be paid for actual work performed, subject to HAS direction and approval. **If Other Work/Services are performed by the on-site crew in conjunction with their regular duties, Contractor shall not receive additional compensation for their labor.**

a. Estimated (HAS) Other Work/Services Labor (Quantities are estimated for budget purposes only)

Year One (b-1) Other Work/Services

Item	Description	Estimated Annual Labor Hours	x	Cost Per Hour	=	Annual Fee
1	CSR/Data Entry Normal Hours	1480	x	\$63.00	=	\$93,240.00
	After Hours	200		\$94.50	=	\$18,900.00
2	Certified PBX Tech Normal Hours	1800	x	\$63.00	=	\$113,400.00
	After Hours	400		\$94.50	=	\$37,800.00
3	PBX Tech Helper Normal Hours	600	x	\$43.75	=	\$26,250.00
	After Hours	60		\$65.63	=	\$3,937.80
4	Cable Technician Normal Hours	600	x	\$32.81	=	\$19,686.00
	After Hours	60		\$49.22	=	\$2,953.20
Total Estimated Other Work/Services Labor Annual Costs Year One						\$316,167.00

b. Estimated (HAS) Other Work/Services Material/Parts/Supplies/Equipment (Quantities are estimated for Budget Purpose Only)

Description	Estimated Annual Labor Hours	x	% Mark-up	=	Total Annual Cost
Estimated Maintenance Materials/Parts/Supplies/Equipment	\$355,000.00	x	5.00%	=	\$372,750.00
TOTAL ESTIMATED (HAS) OTHER WORK/SERVICES LABOR & MATERIALS YR 1(B-1) (add a&b)					\$688,917.00

EXHIBIT B - FEE SCHEDULE

YEAR TWO - (B-2) - OTHER WORK/SERVICES

Other Work/Services may be required for the Telecommunication Services to meet desired conditions and/or repairs not covered in the Basics Services. Any amounts listed below are estimated amounts for Other Work/Services for each year of the Agreement. The actual dollar amount for Other Work/Services may be higher or lower than the estimates, and the Contractor shall only be paid for actual work performed, subject to HAS direction and approval. **If Other Work/Services are performed by the on-site crew in conjunction with their regular duties, Contractor shall not receive additional compensation for their labor.**

a. Estimated (HAS) Other Work/Services Labor (Quantities are estimated for budget purposes only)

Year Two (b-2) Other Work/Services

Item	Description	Estimated Annual Labor Hours	x	Cost Per Hour	=	Annual Fee
1	CSR/Data Entry Normal Hours	1480	x	\$65.00	=	\$96,200.00
	After Hours	200		\$97.50	=	\$19,500.00
2	Certified PBX Tech Normal Hours	1800	x	\$65.00	=	\$117,000.00
	After Hours	400		\$97.50	=	\$39,000.00
3	PBX Tech Helper Normal Hours	600	x	\$45.10	=	\$27,060.00
	After Hours	60		\$67.65	=	\$4,059.00
4	Cable Technician Normal Hours	600	x	\$33.80	=	\$20,280.00
	After Hours	60		\$50.70	=	\$3,042.00
Total Estimated Other Work/Services Labor Annual Costs Year Two						\$326,141.00

b. Estimated (HAS) Other Work/Services Material/Parts/Supplies/Equipment (Quantities are estimated for Budget Purpose Only)

Description	Estimated Annual Labor Hours	x	% Mark-up	=	Total Annual Cost
Estimated Maintenance Materials/Parts/Supplies/Equipment	\$355,000.00	x	5.00%	=	\$372,750.00
TOTAL ESTIMATED (HAS) OTHER WORK/SERVICES LABOR & MATERIALS YR 2 (B-2) (add a&b)					\$698,891.00
74					

EXHIBIT B - FEE SCHEDULE

YEAR THREE - (B-3) - OTHER WORK/SERVICES

Other Work/Services may be required for the Telecommunication Services to meet desired conditions and/or repairs not covered in the Basics Services. Any amounts listed below are estimated amounts for Other Work/Services for each year of the Agreement. The actual dollar amount for Other Work/Services may be higher or lower than the estimates, and the Contractor shall only be paid for actual work performed, subject to HAS direction and approval. **If Other Work/Services are performed by the on-site crew in conjunction with their regular duties, Contractor shall not receive additional compensation for their labor.**

a. Estimated (HAS) Other Work/Services Labor (Quantities are estimated for budget purposes only)

Year Three (b-3) Other Work/Services

Item	Description	Estimated Annual Labor Hours	x	Cost Per Hour	=	Annual Fee
1	CSR/Data Entry Normal Hours	1480	x	\$67.00	=	\$99,160.00
	After Hours	200		\$100.50	=	\$20,100.00
2	Certified PBX Tech Normal Hours	1800	x	\$67.00	=	\$120,600.00
	After Hours	400		\$100.50	=	\$40,200.00
3	PBX Tech Helper Normal Hours	600	x	\$46.80	=	\$28,080.00
	After Hours	60		\$70.20	=	\$4,212.00
4	Cable Technician Normal Hours	600	x	\$35.10	=	\$21,060.00
	After Hours	60		\$52.65	=	\$3,159.00
Total Estimated Other Work/Services Labor Annual Costs Year Three						\$336,571.00

b. Estimated (HAS) Other Work/Services Material/Parts/Supplies/Equipment (Quantities are estimated for Budget Purpose Only)

Description	Estimated Annual Labor Hours	x	% Mark-up	=	Total Annual Cost
Estimated Maintenance Materials/Parts/Supplies/Equipment	\$355,000.00	x	5.00%	=	\$372,750.00
TOTAL ESTIMATED (HAS) OTHER WORK/SERVICES LABOR & MATERIALS YR 3 (B-3) (add a&b)					\$709,321.00

EXHIBIT B - FEE SCHEDULE

YEAR FOUR (OPTION YEAR ONE) - (B-4) - OTHER WORK/SERVICES

Other Work/Services may be required for the Telecommunication Services to meet desired conditions and/or repairs not covered in the Basics Services. Any amounts listed below are estimated amounts for Other Work/Services for each year of the Agreement. The actual dollar amount for Other Work/Services may be higher or lower than the estimates, and the Contractor shall only be paid for actual work performed, subject to HAS direction and approval. **If Other Work/Services are performed by the on-site crew in conjunction with their regular duties, Contractor shall not receive additional compensation for their labor.**

a. Estimated (HAS) Other Work/Services Labor (Quantities are estimated for budget purposes only)

Year Four (Option Year One) (b-4) Other Work/Services

Item	Description	Estimated Annual Labor Hours	x	Cost Per Hour	=	Annual Fee
1	CSR/Data Entry Normal Hours	1480	x	\$69.00	=	\$102,120.00
	After Hours	200		\$103.50	=	\$20,700.00
2	Certified PBX Tech Normal Hours	1800	x	\$69.00	=	\$124,200.00
	After Hours	400		\$103.50	=	\$41,400.00
3	PBX Tech Helper Normal Hours	600	x	\$48.10	=	\$28,860.00
	After Hours	60		\$72.15	=	\$4,329.00
4	Cable Technician Normal Hours	600	x	\$36.10	=	\$21,660.00
	After Hours	60		\$54.15	=	\$3,249.00
Total Estimated Other Work/Services Labor Annual Costs Year Four – Option Year One						\$346,518.00

b. Estimated (HAS) Other Work/Services Material/Parts/Supplies/Equipment (Quantities are estimated for Budget Purpose Only)

Description	Estimated Annual Labor Hours	x	% Mark-up	=	Total Annual Cost
Estimated Maintenance Materials/Parts/Supplies/Equipment	\$355,000.00	x	5.00%	=	\$372,750.00
TOTAL ESTIMATED (HAS) OTHER WORK/SERVICES LABOR & MATERIALS YR 4 (OPTION YEAR ONE) (B-4) (add a&b)					\$719,268.00

EXHIBIT B - FEE SCHEDULE

YEAR FIVE (OPTION YEAR TWO) - (B-5) - OTHER WORK/SERVICES

Other Work/Services may be required for the Telecommunication Services to meet desired conditions and/or repairs not covered in the Basics Services. Any amounts listed below are estimated amounts for Other Work/Services for each year of the Agreement. The actual dollar amount for Other Work/Services may be higher or lower than the estimates, and the Contractor shall only be paid for actual work performed, subject to HAS direction and approval. **If Other Work/Services are performed by the on-site crew in conjunction with their regular duties, Contractor shall not receive additional compensation for their labor.**

a. Estimated (HAS) Other Work/Services Labor (Quantities are estimated for budget purposes only)

Year Five (Option Year Two) (b-5) Other Work/Services

Item	Description	Estimated Annual Labor Hours	x	Cost Per Hour	=	Annual Fee
1	CSR/Data Entry Normal Hours	1480	x	\$71.00	=	\$105,080.00
	After Hours	200		\$106.50	=	\$21,300.00
2	Certified PBX Tech Normal Hours	1800	x	\$71.00	=	\$127,800.00
	After Hours	400		\$106.50	=	\$42,600.00
3	PBX Tech Helper Normal Hours	600	x	\$49.40	=	\$29,640.00
	After Hours	60		\$74.10	=	\$4,446.00
4	Cable Technician Normal Hours	600	x	\$37.10	=	\$22,260.00
	After Hours	60		\$55.65	=	\$3,339.00
Total Estimated Other Work/Services Labor Annual Costs Year Five – Option Year Two						\$356,465.00

b. Estimated (HAS) Other Work/Services Material/Parts/Supplies/Equipment (Quantities are estimated for Budget Purpose Only)

Description	Estimated Annual Labor Hours	x	% Mark-up	=	Total Annual Cost
Estimated Maintenance Materials/Parts/Supplies/Equipment	\$355,000.00	x	5.00%	=	\$372,750.00
TOTAL ESTIMATED (HAS) OTHER WORK/SERVICES LABOR & MATERIALS YR 5 (OPTION YEAR TWO) (B-5) (add a&b)					\$729,215.00

EXHIBIT "C"

PBX SYSTEM DETAILS AND LOCATIONS

EXHIBIT C

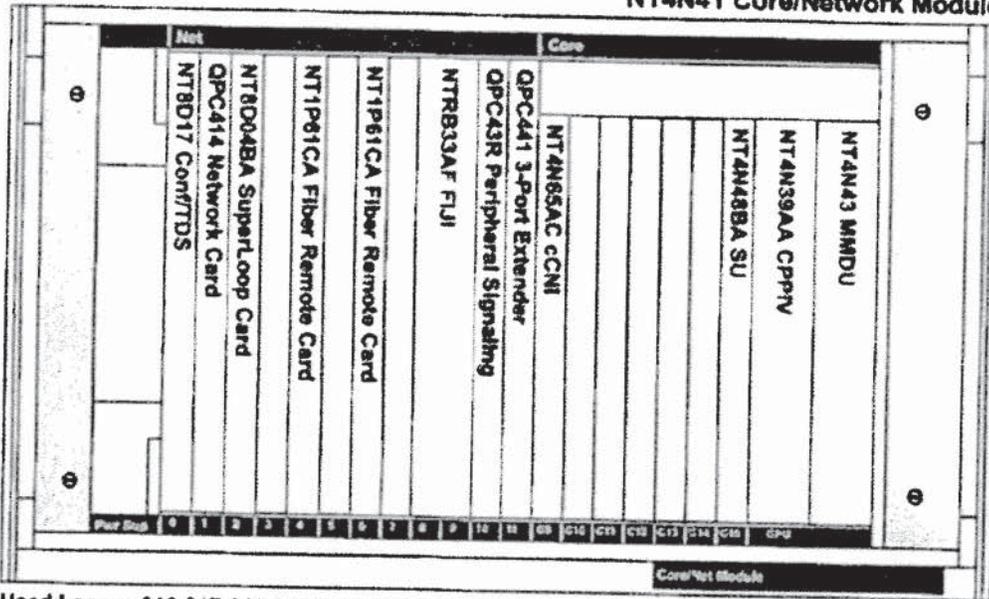
PBX SYSTEM DETAILS & LOCATIONS

- Admin. PBX Equipment Map
- Admin. PBX System Summary
 - HAS PBX Dial Plan
- HOU PBX Equipment Map
- HOU System Summary
 - PBX Network
- Terminal D Equipment Map
- Terminal D System Summary

ADMIN PBX EQUIPMENT MAP

CS1000M MG - CPU 1

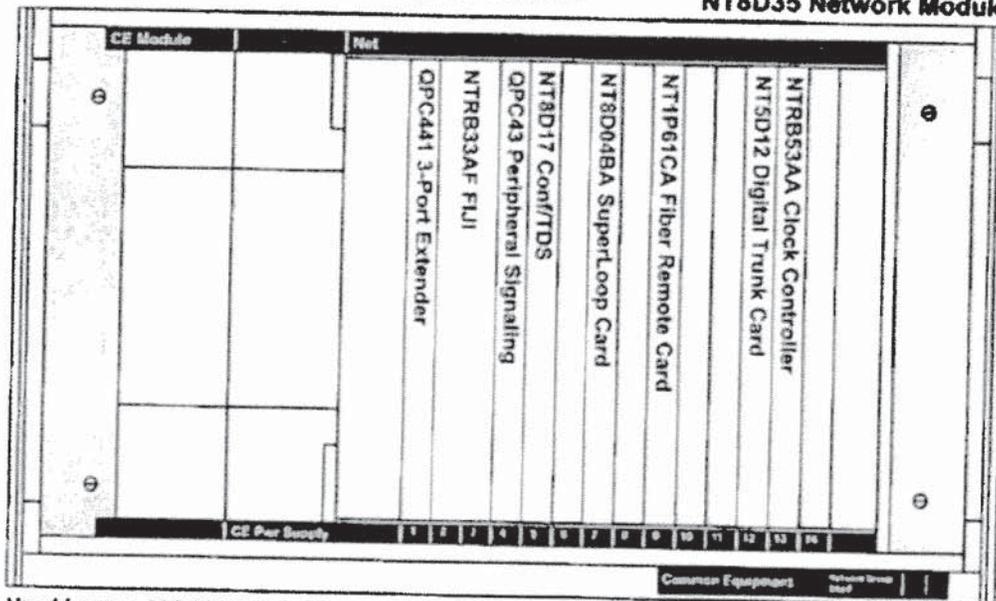
NT4N41 Core/Network Module



Used Loops: 016 017 018 019 020 024 028
 Equipped Loops Not in Use:

CS1000M MG - Network Group 1 / Shelf 0

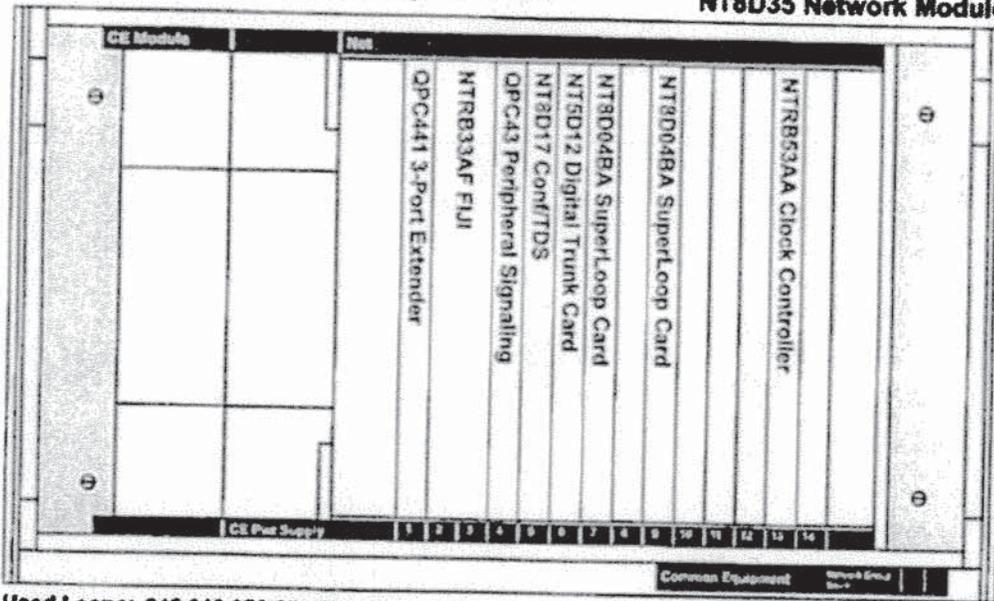
NT8D35 Network Module



Used Loops: 032 033 036 040 046 047
 Equipped Loops Not in Use:

CS1000M MG - Network Group 1 / Shelf 1

NT8D35 Network Module



Used Loops: 048 049 050 051 052 056
 Equipped Loops Not in Use:

Other Common Equipment

The following report lists other Common Equipment devices as they are configured in the Communication Server. The physical equipment which enables these devices is located in the Common Equipment shelves previously shown. However, the precise location of such equipment (which card slot is occupied) cannot be determined from the Communication Server data. Thus, the following equipment is resident in the empty slots of the CE shelves shown. (NOTE: CE Shelves are not shown for older SL-1 based PBXs or heritage Nortel 'small' systems.)

The Density of each card type is set by the technician, and therefore may or may not accurately represent the density of the card. This information is provided to assist in determining the number of physical cards present. An I/O device whose Reports Output column is preceded by an "*" is the System Monitor for the Communication Server.

Module/Slot	Device	Card Type	Density	DES	Reports Output
/	TTY 0	SDI	Quad	XSM	*MTC OSN
/	TTY 1	SDI	Quad		MTC SCH OSN
/	TTY 2	SDI	Quad	CDR	CTY
/	TTY 4	CPSI	Double	CORE_TERM	MTC SCH OSN
/	TTY 5	CPSI	Double	CORE_MODEM	MTC SCH OSN
/	TTY 8	SDI	Quad	TERM	MTC SCH OSN
/	TTY 9	SDI	Quad	SEB	MTC SCH BUG OSN
/	TTY 10	SDI	Quad	ACD	ACD
/	TTY 11	SDI	Quad	ADMIN	MTC SCH OSN
/	TTY 12	PTY		OTMPTY12	SCH OSN
/	TTY 13	PTY		OTMPTY13	MTC SCH BUG OSN

Module/Slot	Device	Card Type	Density	DES	Reports Output
/	AML 0	MSDL	Quad	MSDL	
/	DCH 1	MSDL	Quad	TIE_IAB	
/	DCH 3	MSDL	Quad	LOOP46	
/	DCH 4	MSDL	Quad	LOOP50	
/	DCH 5	MSDL	Quad	LOOP51	
/	DCH 6	MSDL	Quad	LOOP47	
/	DCH 10	MSDL	Quad	TIE_IAB2	
/	DCH 11	DCIP		virtualtrk	
NG:0 S:0 / 6	T-1	PRI			
NG:0 S:0 / 7	T-1	PRI			
NG:1 S:0 / 12	T-1	PRI			
NG:1 S:0 / 12	T-1	PRI			
NG:1 S:1 / 6	T-1	PRI			
NG:1 S:1 / 6	T-1	PRI			

Peripheral Equipment

Legend

Card Type

Part Number

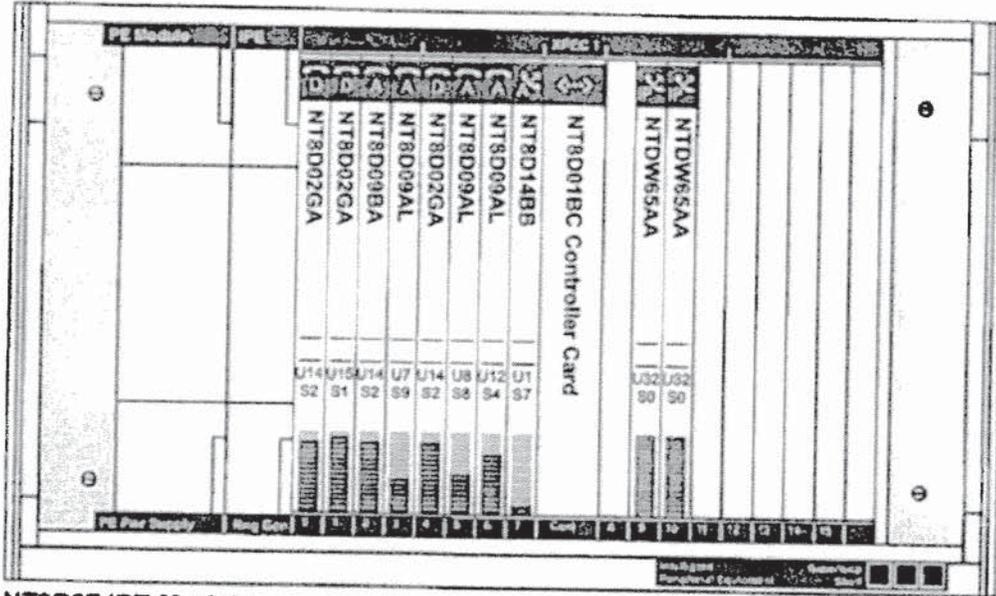
Used/Spare Ports

Graphical Port Count

Card Types:

CPU	DTR	Digital Line	Digital Trunk
Signaling Server	Voicemail	Analog Line	Analog Trunk
Controller	Announcement	IP Line	IP Trunk
Disk Storage	Integrated Services	Data Line	Miscellaneous

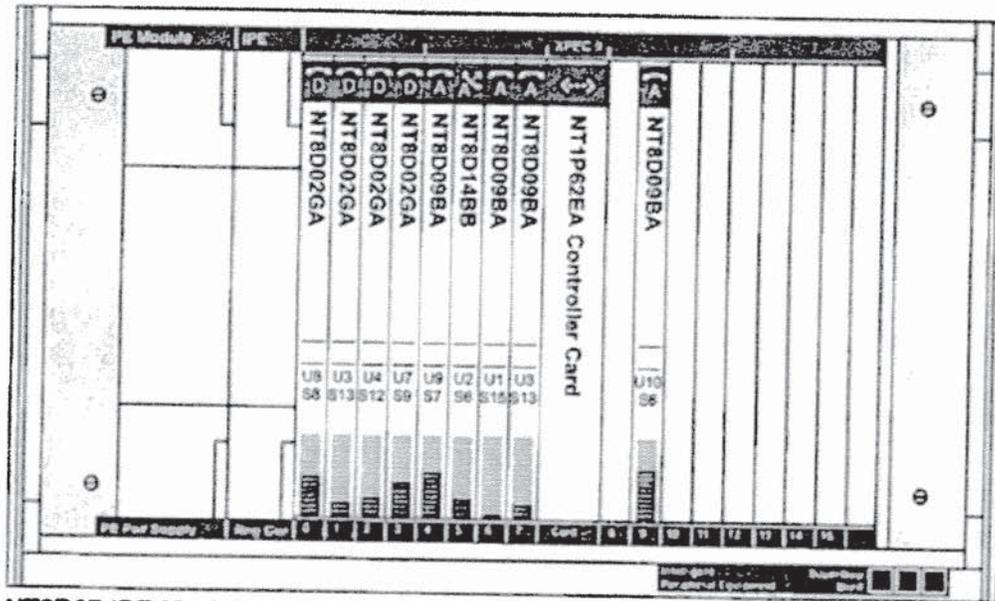
Loop: 004 Shelf: 0



NT8D37 IPE Module

DSP Ports: 64 Loop Traffic: 534 CCS

Loop: 008 Shelf: 0 - Remote Loop

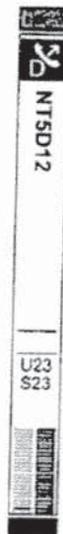


NT8D37 IPE Module

Loop Traffic: 330 CCS

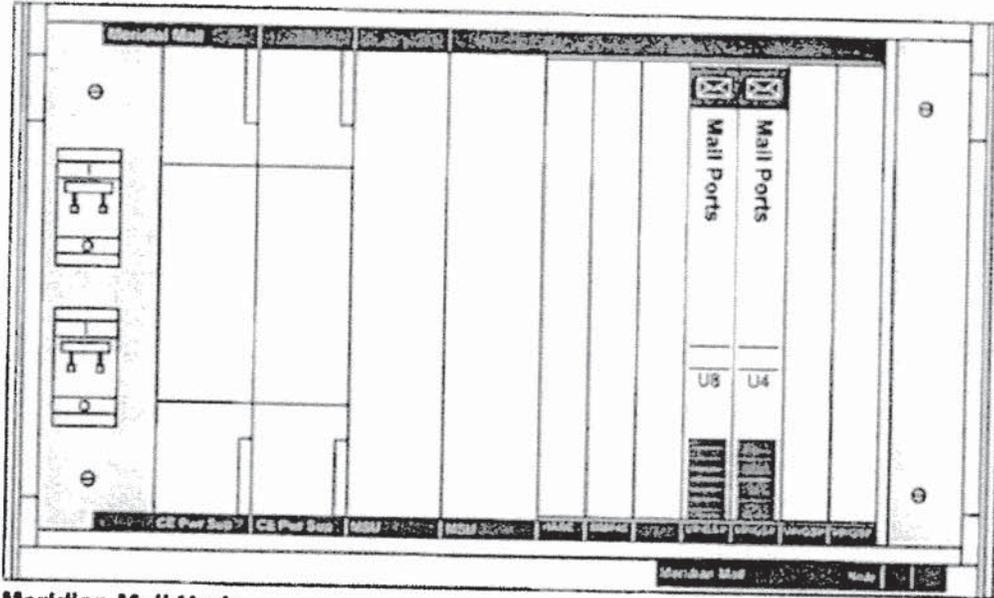
Loops: 012 & 013**Digital Trunk Card***Loop Traffic: 0/690 CCS*

This digital trunk card is physically located in the Common Equipment shelves. Because this card incorporates the functionality of both a Network Card and a Peripheral Equipment card, the card appears in both the Common Equipment and Peripheral Equipment sections. In the Common Equipment Maps, the card is shown in its physical location determined by Loop number. Here we display information regarding its Peripheral Equipment, including used and spare ports. For inventory purposes, the card should only be counted once.

Loops: 014 & 015**Digital Trunk Card***Loop Traffic: 0/690 CCS*

This digital trunk card is physically located in the Common Equipment shelves. Because this card incorporates the functionality of both a Network Card and a Peripheral Equipment card, the card appears in both the Common Equipment and Peripheral Equipment sections. In the Common Equipment Maps, the card is shown in its physical location determined by Loop number. Here we display information regarding its Peripheral Equipment, including used and spare ports. For inventory purposes, the card should only be counted once.

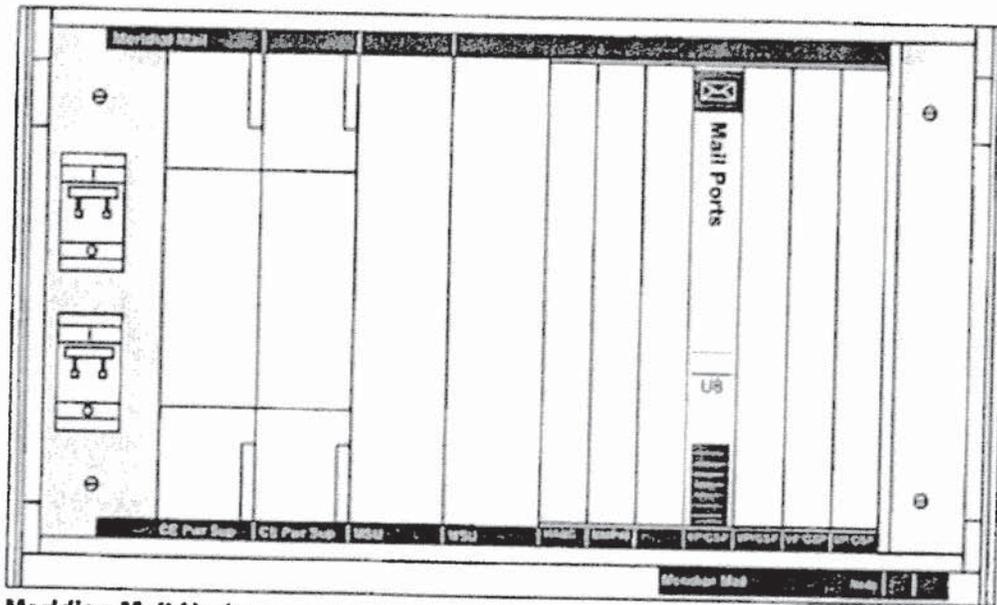
Loop: 018 Shelf: 0



Meridian Mail Node

Loop Traffic: 360 CCS

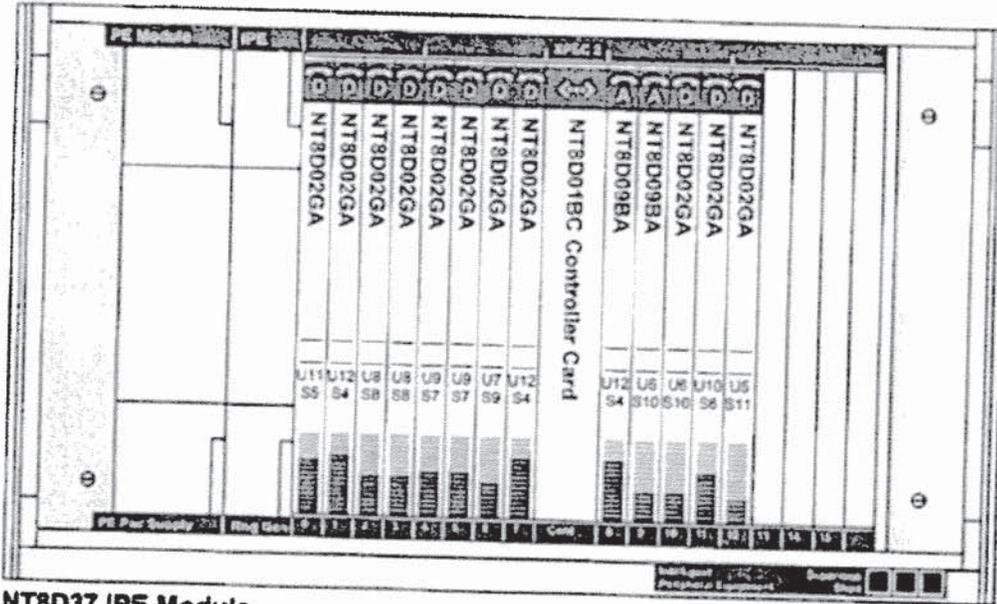
Loop: 018 Shelf: 1



Meridian Mail Node

Loop Traffic: 240 CCS

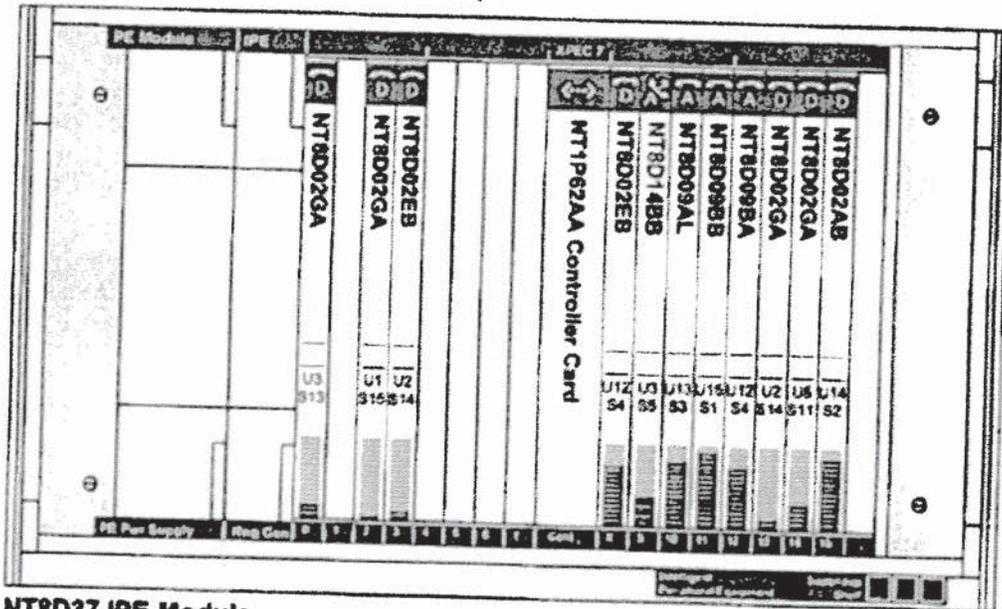
Loop: 020 Shelf: 0



NT8D37 IPE Module

Loop Traffic: 690 CCS

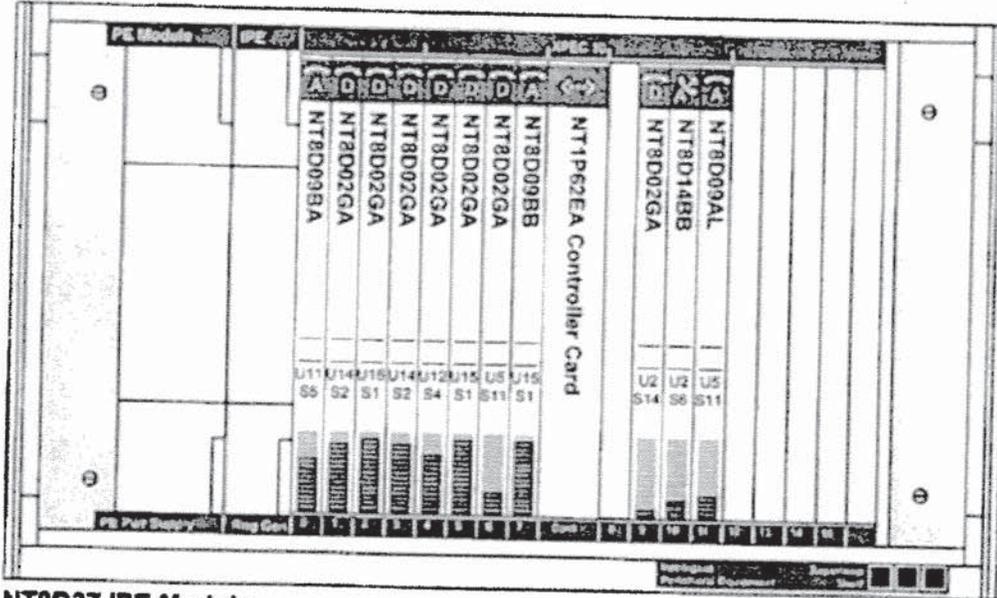
Loop: 024 Shelf: 0 - Remote Loop



NT8D37 IPE Module

Loop Traffic: 564 CCS

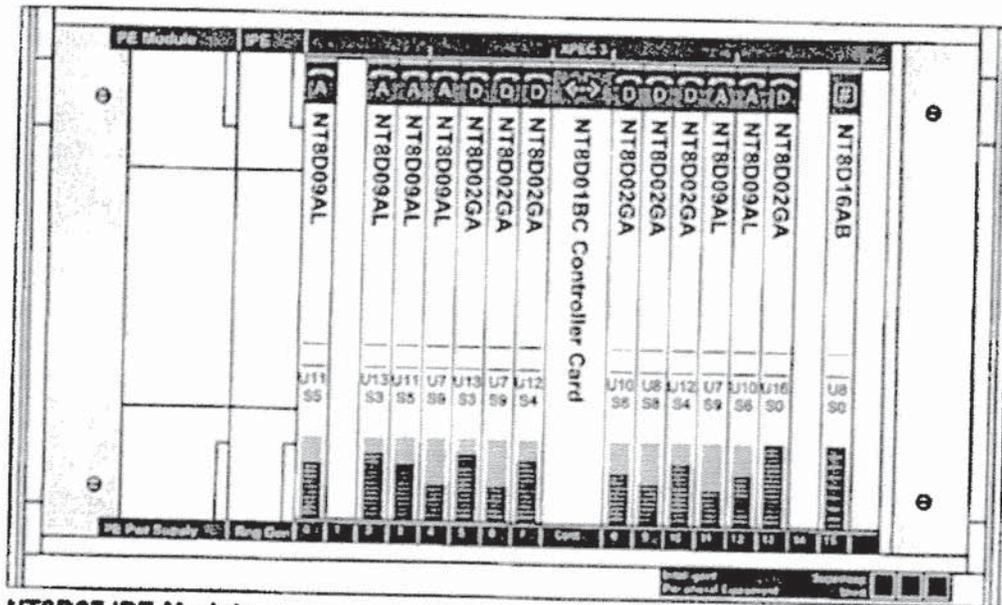
Loop: 028 Shelf: 0 - Remote Loop



NT8D37 IPE Module

Loop Traffic: 708 CCS

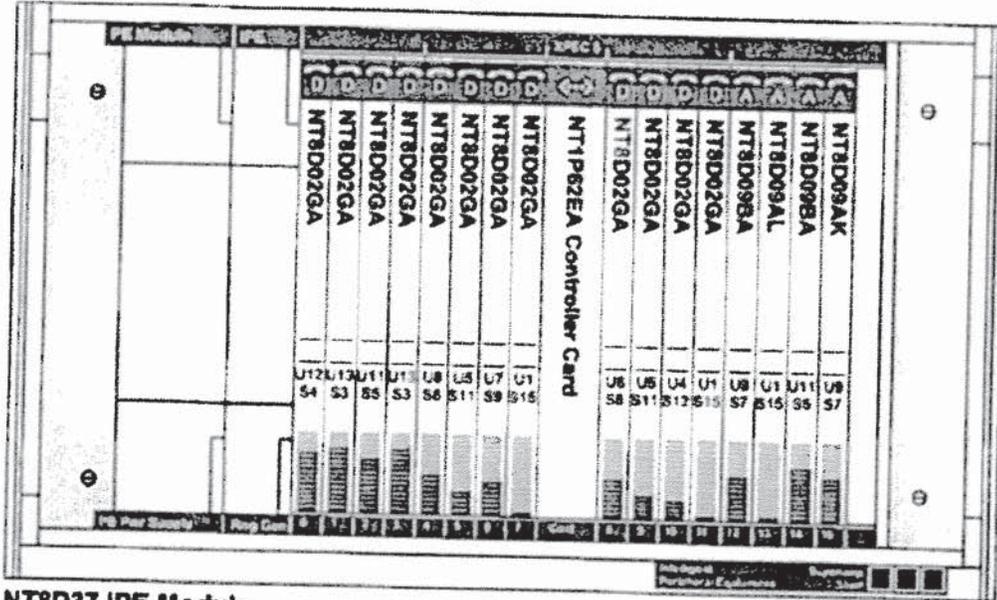
Loop: 036 Shelf: 0



NT8D37 IPE Module

Loop Traffic: 988 CCS

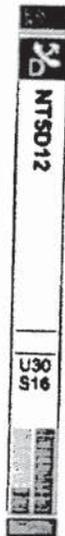
Loop: 040 Shelf: 0 - Remote Loop



NT8D37 IPE Module

Loop Traffic: 708 CCS

Loops: 046 & 047

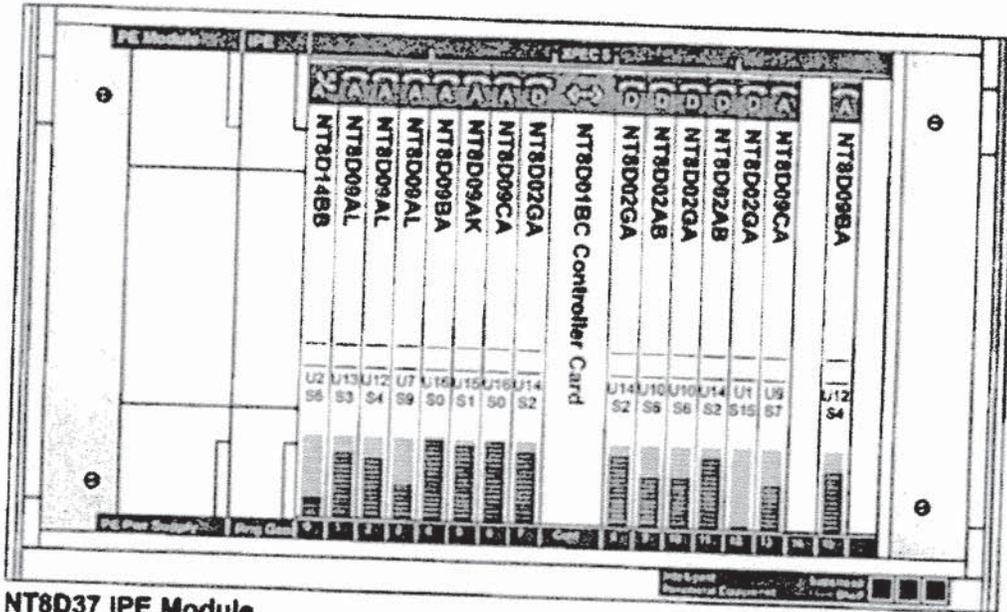


Digital Trunk Card

Loop Traffic: 210/690 CCS

This digital trunk card is physically located in the Common Equipment shelves. Because this card incorporates the functionality of both a Network Card and a Peripheral Equipment card, the card appears in both the Common Equipment and Peripheral Equipment sections. In the Common Equipment Maps, the card is shown in its physical location determined by Loop number. Here we display information regarding its Peripheral Equipment, including used and spare ports. For inventory purposes, the card should only be counted once.

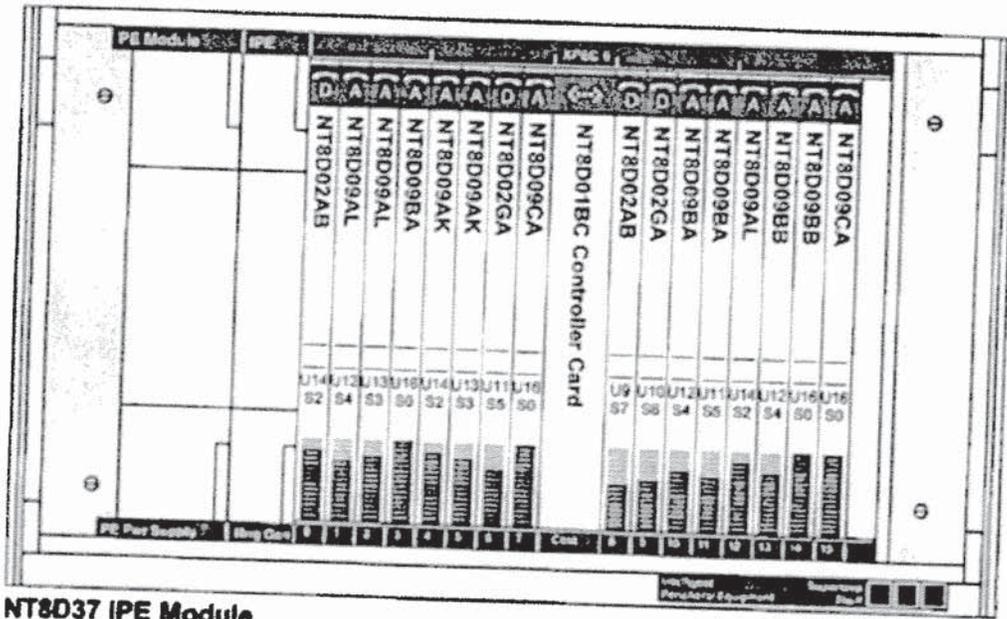
Loop: 056 Shelf: 0



NT8D37 IPE Module

Loop Traffic: 1038 CCS

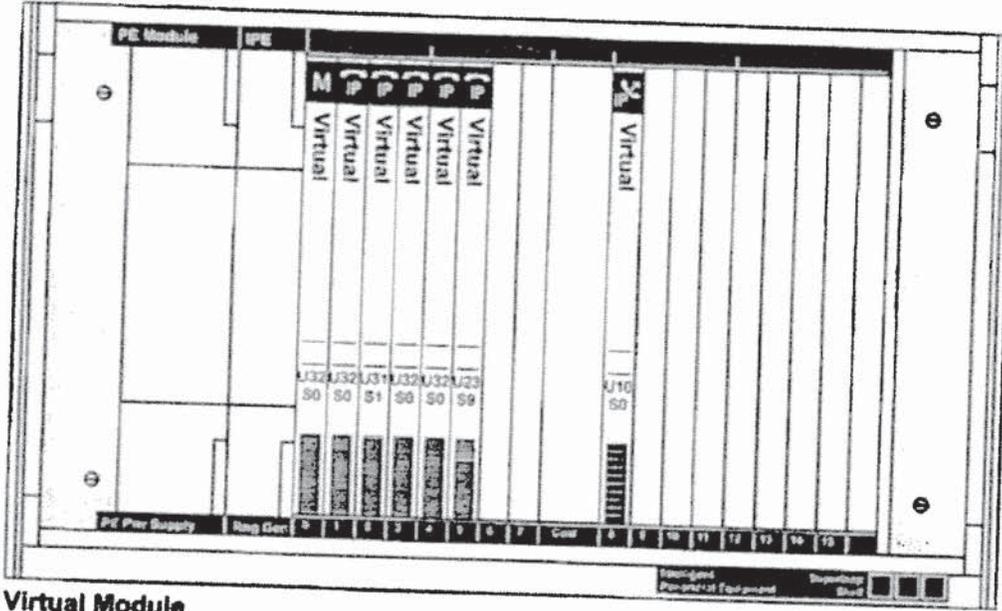
Loop: 056 Shelf: 1



NT8D37 IPE Module

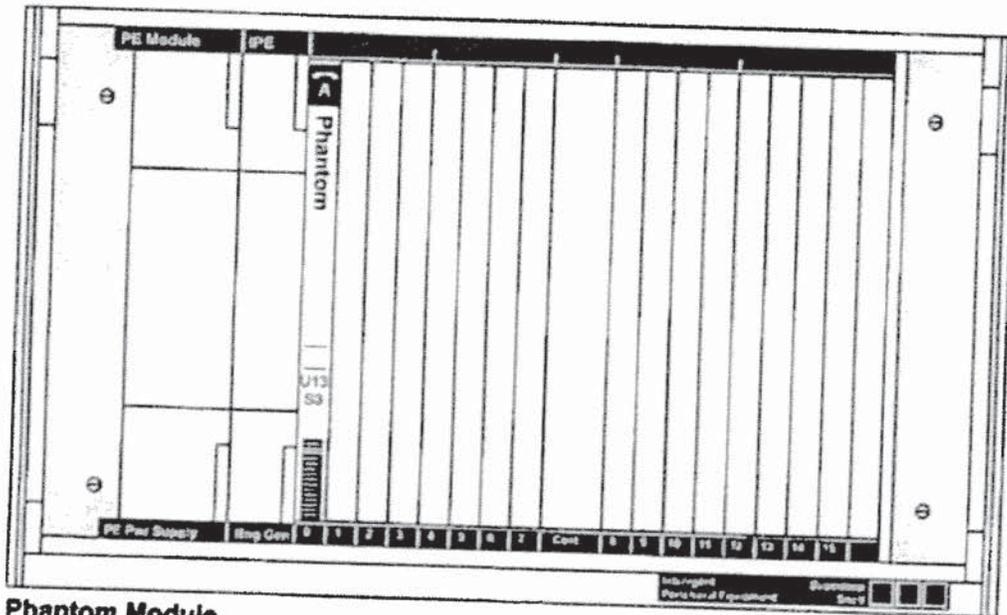
Loop Traffic: 1254 CCS

Loop: 152 Shelf: 0



Virtual Module

Loop: 156 Shelf: 0



Phantom Module

ADMIN PBX SYSTEM SUMMARY

1. System Summary

The System Summary presents basic Communication Server information that is useful for a high-level understanding of the switch. This includes the type of hardware and software installed, serial numbers, and port counts for various facilities in the Communication Server. This information may be used to ensure the accuracy of a maintenance contract covering this Communication Server.

Account Name: HAS - Administration

Customer Number: ██████████

Date of Survey: 6/15/2011

Hardware Model: CS1000M MG

Availability: Standard

Loaded Tape ID: Z02012

Version: 3621

Release: 6

Issue: 00 R +

Port Counts:

Port Type	Equipped	Working	Spare
Analog Station	768	518	250
Digital Station	1128	586	542
Console	2	2	--
IP Telephone	--	177	--
Analog Trunk	48	18	30
Digital Trunk	184	122	62
IP Trunk	0	0	0
DTR	16	16	0
Phantom	--	13	--
IP Physical TN	64	64	0
Meridian Mail	--	20	--
Miscellaneous	35	35	0
Virtual Trunk	--	10	--
Totals	2245	1581	884

Number	PRS	Patch Reference #	Patch Name	Filename
161	Q02159328-01	ISS1:1OF1	p30223_1	p30223_1.pp4
162	wi00821858	ISS1:1OF1	p30243_1	p30243_1.pp4
163	Q02164720	ISS1:1OF1	p30282_1	p30282_1.pp4
164	Q02052184-01	ISS1:1OF1	p30288_1	p30288_1.pp4
165	Q02113482	ISS1:1OF1	p30294_1	p30294_1.pp4
166	Q01994258-03	ISS1:1OF1	p30303_1	p30303_1.pp4
167	Q02167838	p29830	p30324_1	p30324_1.pp4
168	Q02170814	ISS1:1OF1	p30345_1	p30345_1.pp4
169	Q02168320	ISS1:1OF1	p30346_1	p30346_1.pp4
170	Q02172404	ISS1:1OF1	p30357_1	p30357_1.pp4
171	wi00716535	ISS1:1OF1	p30371_1	p30371_1.pp4
172	wi00730456	ISS1:1OF1	p30382_1	p30382_1.pp4
173	WI00732892	ISS1:1OF1	p30410_1	p30410_1.pp4
174	wi00813472	ISS1:1OF1	p30442_1	p30442_1.pp4
175	Q02057170-04	ISS1:1OF1	p29317_1	p29317_1.pp4

No out of service patches were detected in your Communication Server.

Software Packages

Software Package: N/A

The following optional software packages are installed as part of the Communication Server's base operating software:

Number	Package	Description
1	OPTF	Extended PBX Features
2	CUST	Multi-Customer
4	CDR	Call Detail Recording
5	CTY	CDR on a Teletype machine
7	RAN	Recorded Announcement
8	TAD	Time and Date display
9	DNDI	Do Not Disturb, Individual
10	EES	End to End signaling
11	INTR	Intercept Treatment
12	ANI	Automatic Number Identification
13	ANIR	ANI Route Selection
14	BRTE	Basic Routing
16	DNDG	Do Not Disturb, Group
17	MSB	Make Set Busy
18	SS25	Special Service on 2500 Sets
19	DDSP	Digit Display
20	ODAS	Office Data Administration System
21	DI	Dial Intercom
22	DISA	Direct Inward System Access
23	CHG	Charge Account
24	CAB	Charge Account/Authorization Code (Base Package)

Number	Package	Description
25	BAUT	Basic Authorization Code
26	CASM	Centralized Attendant Service, (Main)
27	CASR	Centralized Attendant Service, (Remote)
28	BQUE	Basic Queuing
29	NTRF	Electronic Switched Network (ESN) Traffic Measurements
32	NCOS	Network Class of Service
33	CPRK	Call Park
34	SSC	System Speed Call
35	IMS	Integrated Message Service
35	UMG	Integrated Message Service
35	UST	Integrated Message Service
36	ROA	Recorded Overflow Announcement
37	NSIG	ESN Signaling
38	MCBQ	ESN Queuing
39	NSC	Network Speed Call
40	BACD	Basic, Automatic Call Distribution (ACD)
41	ACDB	ACD, Package B
42	ACDC	ACD, Package C
43	LMAN	ACD Load Management
44	MUS	Music Package
45	ACDA	ACD, Package A
46	MWC	Message Waiting Center
47	AAB	Automatic Answerback
48	GRP	Group Call
49	NFCR	New Flexible Code Restriction
50	ACDD	ACD, Package D
51	LNK	ACD/D, Auxiliary Link Processor
52	FCA	Forced Charge Account
53	SR	Set Relocation
54	AA	Attendant Administration
55	HIST	History File
56	AOP	Attendant Overflow Position
58	NARS	Network Alternate Routing
59	CDP	Coordinated Dialing Plan
60	PQUE	Priority Queuing
61	FCBQ	Flexible Call Back Queuing
62	OHQ	Off Hook Queuing
63	NAUT	Network Authorization Code
64	SNR	Stored Number Redial
65	TDET	Tone Detector
67	NXFR	Network Transfer
70	HOT	Flexible Hotline
71	DHLD	Deluxe Hold
72	LSEL	Automatic Line Selection

Number	Package	Description
73	SS5	500 Set Features
74	DRNG	Distinctive Ringing
75	PBXI	Digital Trunk Interface
76	DLDN	Departmental Listed Directory Number
77	CSL	Command Status Link
79	OOD	Optional Outpulsing Delay
80	SCI	Station Category Information
81	CCOS	Controlled Class of Service
83	CDRQ	CDR Queue Record
86	TENS	Multi-Tenant Service
87	FTDS	Fast Tone and Digit Switch
88	DSET	Digital Telephone Set
89	TSET	M3000 Telephone Set
90	LNR	Last Number Redial
91	DLT2	Delta II telephone Sets
92	PXLT	Pretranslation
93	SUPV	Attendant Supervision
95	CPND	Call Party Name Display
98	DNIS	Dialed Number Identification System
99	BGD	Background Terminal Facility
100	RMS	Room Status
101	MR	Message Registration
102	AWU	Automatic Wake-up Service (BGD)
103	PMSI	Property Management System Interface
105	LLC	Line Load Control
107	MCT	Malicious Call Trace
108	ICDR	Internal Call Detail Recording
109	APL	Auxiliary Processor Link
110	TVS	Trunk Verification from Station
111	TOF	Time Overflow Queuing
113	IDC	Incoming DID Digit Conversion
114	AUXS	ACD Package D Auxiliary Security
115	DCP	Directed Call Pickup
116	PAGT	ACD Priority Agents
117	CBC	Call-by-Call Service Selection
118	CCDR	Calling Line Identification in Call Detail Recording
119	EMUS	Enhanced Music
120	PLDN	Group Hunt/DN Access to SCL
121	SCMP	Station Camp-On
125	FTC	Flexible Tones & Cadences
127	BKI	Attendant Break-in/Trunk Offer
129	DTI2	2M DTI
132	TBAR	Trunk Barring
133	ENS	Enhanced Night Service

Number	Package	Description
139	FFC	Flexible Feature Codes
140	DCON	M2250 TCM Console
141	MPO	Multi-Party Operations
145	ISDN	Integrated Services Digital Network Signaling Package
146	PRA	Primary Rate Access
147	ISL	ISDN Signaling Link
148	NTWK	Network Ring Again
149	IEC	Inter-Exchange Carrier (ISDN)
150	DNXP	Directory Number Expansion
151	CDRE	Call Detail Recording Expansion
152	FXS	Flexible Services Port
153	IAP3P	ISDN Application Protocol Third Party Vendor
154	PRI2	2.0 Mbit/s Primary Rate Interface
155	ACNT	ACD Activity Code Entry
157	THF	Centrex Switchhook Flash
158	FGD	Feature Group D
159	NAS	Network Attendant Service
160	FNP	Flexible Numbering Plan
161	ISDN_INTL_SUP	ISDN Supplementary Features
162	SAR	Scheduled Access Restrictions
163	MINT	Message Intercept
164	LAPW	Limited Access to Overlays
167	GPRI	International 1.5/2.0 Mb/s Gateway
170	ARIE	Meridian Modular Telephone Sets
172	CPGS	Console Presentation Group Level Services
173	ECCS	Enhanced Controlled Class of Service
174	AAA	Attendant Alternative Answering
175	NMS	Network Message Services
178	EOVF	Enhanced Overflow
179	HVS	Meridian Hospitality Voice Services
180	DKS	Console Digit Key Signaling
181	SACP	Semi-Automatic Camp-On
183	VNS	Virtual Network Services
184	OVLV	Overlap Signaling
185	EDRG	Executive Distinctive Ringing
186	POVR	Priority Override/Forced Camp-On
191	SECL	Series Call
192	ORC-RVQ	Remote Virtual Queuing
202	IPRA	International Primary Rate Access
203	XPE	Extended Peripheral Equipment
204	XCT0	Enhanced Conference, TDS and MFS card
205	XCT1	Superloop Administration
206	MLWU	Multi Language Wake-up
207	NACD	Network ACD