

| May 12, 2003 | | | | |
|--------------|--|-----------|-----------|-----------|
| Item | Version 1.5 | Estimated | Estimated | Estimated |
| No. | Description | Qty | Unit Cost | Cost |
| 1.0 | <u>SECTION I - PRE-INSTALLATION ACTIVITIES</u> | | | |
| 1.1 | <u>Prepare Fiber/Copper Interconnectivity Installation Plan (Non-IBM)</u> | | | |
| 1.1.1 | Prepare Fiber/Copper Interconnectivity Plan for HP (DEC) Equip | 240 | \$195.0 | \$46,800 |
| 1.1.2 | Prepare Fiber Interconnectivity Plan for SANS | 1,920 | \$195.0 | \$374,400 |
| 1.1.3 | Prepare Fiber Interconnectivity Plan for Cabinets | 480 | \$195.0 | \$93,600 |
| 1.2 | <u>Prepare Mainframe Channel Configuration Plan</u> | | | |
| | IBM - Mainframe | 160 | \$195.0 | \$31,200 |
| | IBM - ESCON Directors, Sysplex Timers and Converters | 320 | \$195.0 | \$62,400 |
| 13 | <u>Test All Electrical Systems Under Raised Floor Prior to Install</u> | | | |
| | IBM | 20 | \$195.0 | \$3,900 |
| | Others | 30 | \$195.0 | \$5,850 |
| 1.4 | <u>Produce Stacking Plan for Equipment in Cabinets (Installation Plan)</u> | | | |
| | Elevation Drawings for PC and Server Cabinets | 1,080 | \$140.0 | \$151,200 |
| | Elevation Drawings for Network and Dataswitch Cabinets | 160 | \$140.0 | \$22,400 |
| | Design KVM and Console Controller Configurations | 300 | \$140.0 | \$42,000 |
| 1.5 | <u>Produce Cabling Inter-Connectivity Plans</u> | | | |
| | Design NOC Configuration and Connectivity Spreadsheet | 60 | \$160.0 | \$9,600 |
| | Prepare Router and Switch Configuration Plan | 160 | \$195.0 | \$31,200 |
| 1.6 | <u>Prepare Software and Systems Operating Scripts</u> | | | |
| | Prepare Network Initialization Scripts | 240 | \$195.0 | \$46,800 |
| | Prepare Mainframe Startup Script (lots of meetings and work) | 480 | \$195.0 | \$93,600 |
| | Prepare SANS Startup and Test Script | 240 | \$220.0 | \$52,800 |
| | Prepare DWDM Test Script for Remote Site Connections | 120 | \$195.0 | \$23,400 |
| | Sub-Total Pre-Installation Activities | 6,010 | | 1,091,150 |
| 2.0 | <u>SECTION II - DATA CENTER INSTALLATION ACTIVITIES</u> | | | |
| 2.1 | <u>Racks and Cabinets</u> | | | |
| | Relocate 180 cabinets and racks from docks | 15 | \$180.0 | \$2,700 |
| | Install 180 cabinets and racks (2 hours each) | 360 | \$180.0 | \$64,800 |
| | Test cable connections after final attachment (.5 hrs ea.) | 90 | \$190.0 | \$17,100 |
| | Sub-Total Racks and Cabinets | 465 | | \$84,600 |
| 2.2 | <u>IBM Equipment</u> | | | |
| | Relocate equipment from dock | 40 | \$195.0 | \$7,800 |
| | Install and initialize mainframes | 60 | \$195.0 | \$11,700 |
| | Install and initialize 3x74 controllers | 40 | \$195.0 | \$7,800 |
| | Install, connect and initialize ESCON directors and converters | 80 | \$195.0 | \$15,600 |
| | Install, connect and initialize DASD and other peripherals (incl large printers) | 80 | \$195.0 | \$15,600 |
| | Test and certify all equipment. | 80 | \$195.0 | \$15,600 |
| | Data migration of systems and application data | 60 | \$195.0 | \$11,700 |
| | Sub-Total IBM Equipment | 440 | | \$85,800 |

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| 2.3 | <u>EMC Equipment</u> | | | |
| | Relocate equipment from dock | 40 | \$180.0 | \$7,200 |
| | Install and initialize all EMC equipment | 160 | \$195.0 | \$31,200 |
| | Attach all SANS fibers to EMC equipment | 40 | \$195.0 | \$7,800 |
| | Test and certify all equipment | 80 | \$195.0 | \$15,600 |
| | Data migration of systems and application data | 80 | \$195.0 | \$15,600 |
| | Sub-Total EMC Equipment | 400 | | \$77,400 |
| 2.4 | <u>Storage-Tek Equipment</u> | | | |
| | Relocate equipment from dock | 60 | \$180.0 | \$10,800 |
| | Assemble, install and initialize silos (7 complete systems) (1 week per system) | 700 | \$175.0 | \$122,500 |
| | Load tapes (60,000) | 160 | \$75.0 | \$12,000 |
| | Run startup routines to bring silos online with tapes | 80 | \$175.0 | \$14,000 |
| | Test and certify all equipment | 80 | \$175.0 | \$14,000 |
| | Sub-Total Storage-Tek Equipment | 1,080 | | \$173,300 |
| 2.5 | <u>Digital VAX and Alpha Equipment (HP)</u> | | | |
| | Relocate equipment from dock | 15 | \$180.0 | \$2,700 |
| | Assemble, install and initialize DEC equip. Install all connecting cables | 280 | \$190.0 | \$53,200 |
| | Test and certify all equipment | 85 | \$190.0 | \$16,150 |
| | Data migration of systems and application data | 100 | \$190.0 | \$19,000 |
| | Sub-Total Digital Equipment | 480 | | \$91,050 |
| 2.6 | <u>Compaq Server Equipment (HP)</u> | | | |
| | Relocate equipment from dock | 80 | \$180.0 | \$14,400 |
| | Install Compaq servers in cabinets and racks (approx. 360) | 360 | \$195.0 | \$70,200 |
| | Attach communications cable to 180 cabinets and racks (1.5 hrs ea.) | 270 | \$75.0 | \$20,250 |
| | Connect KVM and network cables. Program KVMs and console controllers | 180 | \$120.0 | \$21,600 |
| | Initialize, test and certify all equipment (1.0 hr each) | 360 | \$195.0 | \$70,200 |
| | Data migration of systems and application data | 360 | \$175.0 | \$63,000 |
| | Sub-Total SUN Equipment | 1,610 | | \$259,650 |
| 2.7 | <u>SUN Equipment</u> | | | |
| | Relocate equipment from dock (approx. 120) | 24 | \$180.0 | \$4,320 |
| | Install and initialize SunFire 6800 (attach all SANS & other fibers) | 32 | \$195.0 | \$6,240 |
| | Install SUN servers in cabinets and racks (approx. 120) (2 staff, 1hr. Ea) | 240 | \$195.0 | \$46,800 |
| | Initialize, test and certify all equipment (1 hr. each) | 120 | \$195.0 | \$23,400 |
| | Data migration of systems and application data (1 hr. ea.) | 120 | \$195.0 | \$23,400 |
| | Sub-Total SUN Equipment | 536 | | \$104,160 |
| 2.8 | <u>IBM AS400 Systems</u> | | | |
| | Relocate equipment from dock (approx. 12) | 8 | \$180.0 | \$1,440 |
| | Install and initialize AS/400 Systems | 32 | \$195.0 | \$6,240 |
| | Initialize, test and certify all equipment (2 Staff 1 hr. each) | 24 | \$195.0 | \$4,680 |
| | Data migration of systems and application data (2 staff 1 hr. each) | 24 | \$195.0 | \$4,680 |
| | Sub-Total AS/400 Equipment | 88 | | \$17,040 |
| 2.9 | <u>IBM AIX Systems</u> | | | |
| | Relocate equipment from dock (approx. 20) | 16 | \$180.0 | \$2,880 |

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| | Install and initialize AIX Systems | 60 | \$195.0 | \$11,700 |
| | Initialize, test and certify all equipment (2 Staff 1 hr. each) | 40 | \$195.0 | \$7,800 |
| | Data migration of systems and application data (2 staff 1 hr. each) | 40 | \$195.0 | \$7,800 |
| | Sub-Total AS/400 Equipment | 156 | | \$30,180 |
| 2.10 | <u>Network, Modems, Terminal Server Equipment, DWDM</u> | | | |
| | Relocate equipment from storage | 80 | \$90.0 | \$7,200 |
| | Install routers, switches and terminal servers (initialize and configure) | 320 | \$160.0 | \$51,200 |
| | Install DWDM (initialize, configure and test) | 160 | \$160.0 | \$25,600 |
| | Connect and cross-connect all inter-connecting cables | 320 | \$160.0 | \$51,200 |
| | Test and certify all data circuit connections | | | |
| | Sub-Total Network, Modems & Term Server Equipment | 880 | | \$135,200 |
| 2.11 | <u>Other</u> | | | |
| | Other relocation from storage | 40 | \$90.0 | \$3,600 |
| | Install, connect and initialize other equipment | 80 | \$160.0 | \$12,800 |
| | Connect and cross-connect all inter-connecting cables | 20 | \$160.0 | \$3,200 |
| | Test and certify all other | 20 | \$160.0 | \$3,200 |
| | Sub-Total Network, Modems & Term Server Equipment | 160 | | \$22,800 |
| 2.12 | <u>Help Desk</u> | | | |
| | Setup and Run Help Desk for One Week | 160 | \$150.0 | \$24,000 |
| | | | | |
| | SUB-TOTAL SECTION II - DATA CENTER INSTALL ACTIVITIES | 6,455 | | 1,105,180 |
| 3.0 | <u>SECTION III - PROJECT MANAGEMENT</u> | | | |
| 3.1 | <u>Project Management</u> | | | |
| | Project Manager | 768 | \$175.0 | \$134,400 |
| | Assitant Project Staff | 960 | \$120.0 | \$115,200 |
| | Network Engineer | 480 | \$175.0 | \$84,000 |
| | CAD Specialist | 480 | \$130.0 | \$62,400 |
| | Office Assistant | 960 | \$60.0 | \$57,600 |
| | SUB-TOTAL SECTION III - CONSULTING/PROFESSIONAL FEES | 3,648 | | \$453,600 |
| 40 | <u>SECTION IV - SUMMARY OF COSTS</u> | | | |
| Section I | Sub-Total Section I - Pre-Installation Activities | 6,010 | | \$1,091,150 |
| Section II | Sub-Total Section II - Data Center Installation Activities | 6,455 | | \$1,105,180 |
| Section III | Sub-Total Section V - Project Management | 3,648 | | \$453,600 |
| | TOTAL PROJECT COSTS | 16,113 | | \$2,649,930 |