Data Specialties Inc.

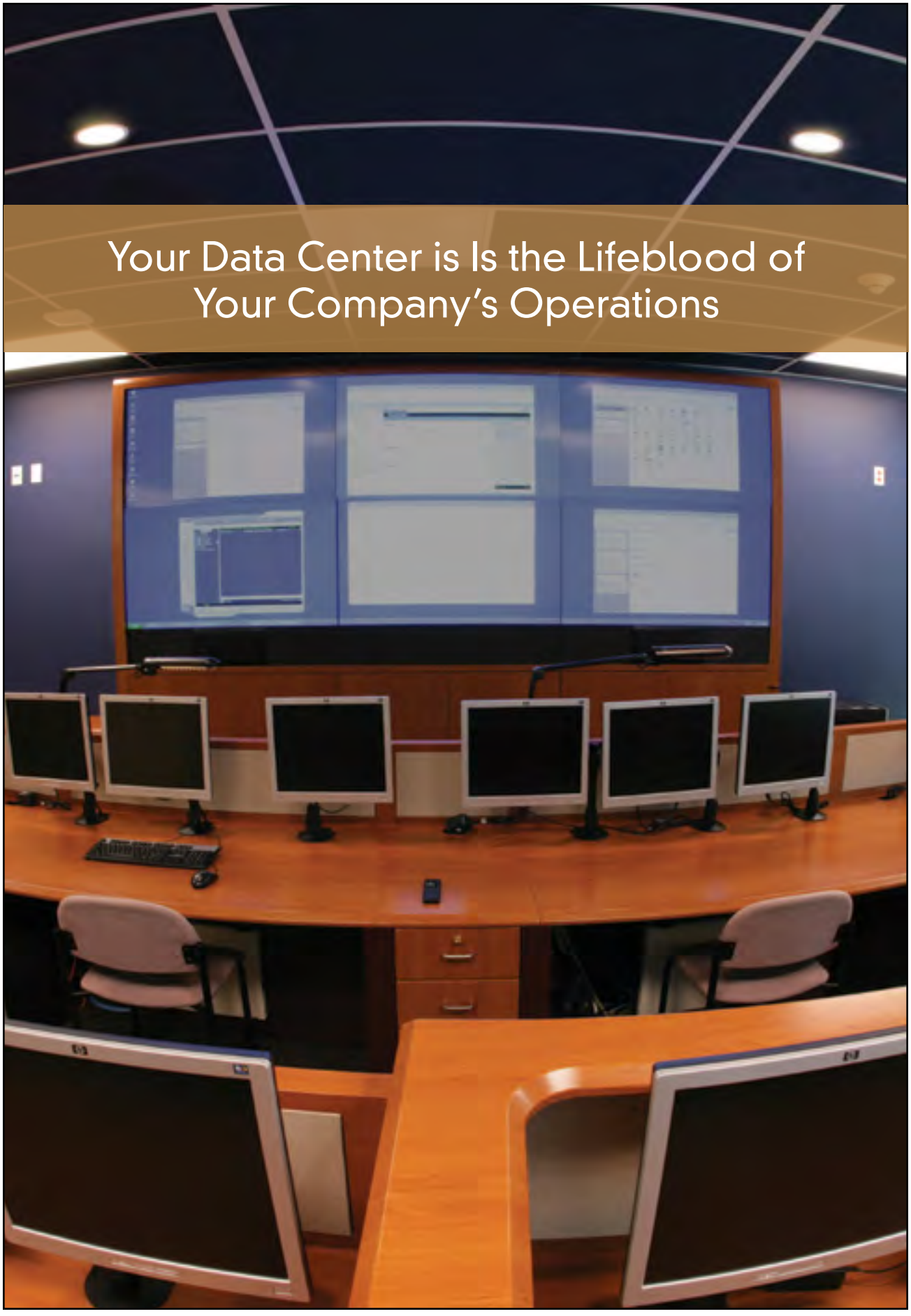
"We Build Data Centers"


Your Data Center Houses the Mission-Critical
Systems that Drive Your Company.

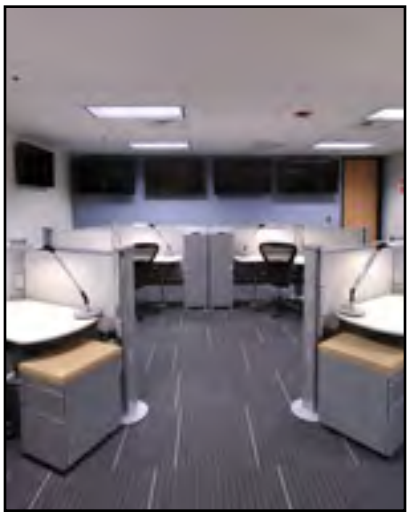
Table of Contents

800-454-5164

Your Data Center is Is the Lifeblood of Your Company's Operations



About Data Specialties Inc.



"We Build Data Centers"

About Us

Designing and building data centers is all that Data Specialties Inc. (DSI) has ever done. Even before the company was established, our principals worked together on some of the first data centers built in the United States.

Since 1990, DSI has been a leader in designing, building and maintaining our clients' mission critical data centers and other high technology facilities. Today we manage all aspects of site selection, design, construction, commissioning and maintenance of data centers. We also continuously anticipate future developments, ensuring that our designs deliver the reliability through redundancy that clients expect now and the scalability and flexibility to accommodate future moves, adds and changes.

Because we understand that the data center is critical to every aspect of a company's operations, our designs are anchored on solutions for high-reliability and safeguards that eliminate disruptions. We coordinate our installations to minimize interruptions to day-to-day operations. And we provide ongoing maintenance expertise to keep our clients' data centers and electrical and communications systems running at their optimal efficiencies.

Data Specialties Inc. is committed to designing and building the data centers our clients require for their businesses to thrive.

As a company, we are dedicated to making our own business thrive through an unwavering commitment to delivering quality and to meeting the highest possible standards. When it comes to data centers and other mission critical facilities, the planning and design must be impeccable, the work must be executed perfectly and the infrastructure must work optimally for years to come. Further, the facilities need to be designed today to allow for modular expansions and changes tomorrow – even to accommodate technology-based advances that may not yet have been conceived.

Our commitment to quality and foresight has been an integral part of our operations since before the company was founded. Our cofounders' and principals' early experience led them to expect the best from each employee and contractor on specific projects. We form relationships with individuals and suppliers who have an eye to the future and the energy and curiosity to stay abreast of changes in technology, practices, permitting requirements and equipment design.

About Us

At the same time, Data Specialties Inc. supports our people with ongoing training and professional development opportunities. These include in-house seminars, assistance with courses and classes, and attendance at professional conferences and tradeshows.

We also maintain stringent health and safety practices. We insist on a drug- and alcohol-free environment and conduct random drug testing to ensure ongoing compliance. DSI considers health and safety and quality of installations our top priority. Our diligence in regard to health and safety issues has resulted in a "oil refinery" level safety rating.

DSI, which is working toward ISO 9001 certification, attends to the safety and ongoing education of our employees in much the same way as we work to ensure the long-term viability of our customers' data centers and other high technology facilities. Our success is rooted in the quality of our work and the resulting repeat business and referrals from our customers.

Services

Services

In designing or upgrading the client's mission-critical data center facility, Data Specialties Inc. begins by evaluating the company's physical and functional requirements. Working within the client's needs, budget and timeframe, we tailor a master plan specific to the project.

We provide optional designs for each sub-system with rough order of magnitude (ROM) pricing, benefits and redundancy features. Further, our master plan tracks each task to ensure that the project is completed in the most practical and efficient order. Our full, real-time management approach allows the client to make value-added decisions from the earliest stages of the project through its implementation.

Assessments/Evaluations

We begin all of our projects by assessing our clients' business requirements.
Whether designing a new data center or upgrading an existing one, we evaluate:

- Information technology (IT) programming
- Architectural constraints
- Fire protection
- Mechanical requirements
- Electrical infrastructure
- Security and environmental infrastructure
- Environmental monitoring
- Single points of failure
- Energy efficiency
- Power/cooling systems capacity – existing and anticipated
- Capacity to expand/alter IT configurations
- Ability to make changes in a logical modular program
- Desired levels of capacity, reliability and efficiency
- Cost estimates to mitigate deficiencies, increase capacity, and increase efficiency or reliability

Statement of Requirements

We provide our clients with a statement of requirements. These documents define the design requirements and operational criteria for new or renovated facilities. Our reports include:

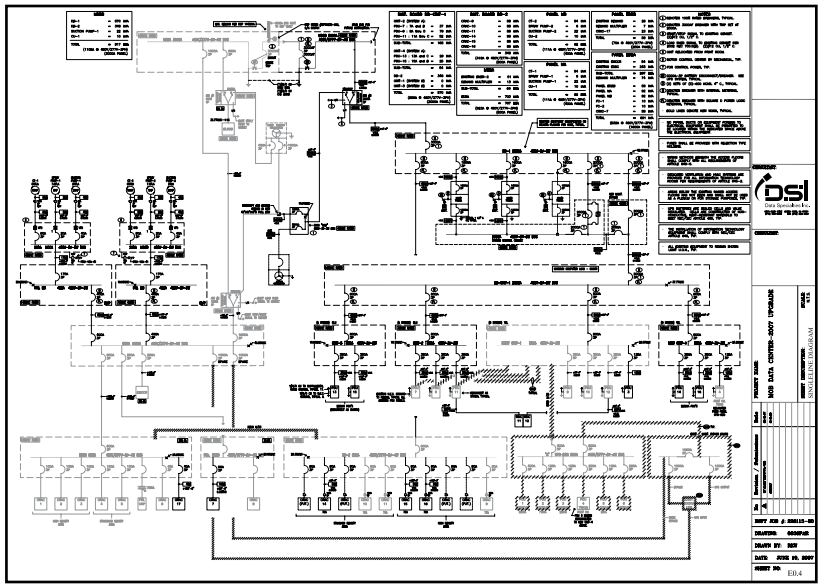
- Inventory the current environment and needs
- Identify future requirements
- Quantify the operational business needs (personnel, IT program, operational hours, reliability, etc.)
- Define the facility's required spaces, sizes, adjacencies, elevation requirement, capacities, growth, modularity and scalability
- Describe the required systems and operational requirements for power, cooling, fire protection, security, monitoring, structural requirements
- Define architectural elements (raised-access floor, seismic requirements, etc.)
- Discuss program requirements for security, geographic and environmental conditions
- Detail potential "green" solutions and options for the data center design
- Provide optional designs with ROM pricing, benefits and redundancy features

Services

Design Engineering Services

DSI, working with the engineering community, provides professional design/build drawings and specifications for the construction of the client's new, expanded, consolidated or relocated facility. DSI's design and construction documents include the technical drawings, schedules, diagrams and specifications necessary to set forth in detail the requirements for construction. These documents provide information customarily necessary for the use of those in the building trades; include documents customarily required for regulatory agency approval; and include such other detailed items as are necessary for the proper execution and completion of the project.

The drawings address every aspect of the project's architectural, structural engineering, electrical, mechanical, security and fire protection requirements. We also provide general specifications and contract provisions for all vendors and trade contractors. These instructions set forth the specific requirements for bid submission, award of contract, progress payments, change order applications, scheduling, quality control, start-up, testing, and as-built documentation, as well as operations and maintenance manual standards. In addition to providing the technical specifications for material and equipment—as well as the performance of the trade-related work—these specifications provide the detail necessary to obtain competitive bids and support our clients in local permitting and zoning processes.



Cutting Edge Design Capabilities

Energy Efficiency ■ LEED Standards ■ Environmental Considerations

Data Specialties Inc. was founded to design and build data centers. The company has developed its leading capabilities in pace with the ever-changing technologies and demands of our clients' data centers and other high-technology facilities. We continuously seek out new technologies and techniques to incorporate into our clients' data centers; we also stay attuned to our clients' needs and have expanded our service offerings to address their needs. For instance, DSI offers computational fluid dynamics capabilities to ensure that our data center designs address each facility's cooling requirements. **We offer three-dimensional (3-D) engineering to ensure that facilities can be built to specification before construction begins.**

Clearly, the future of data center design will comply with Leadership in Energy and Environmental Design (LEED) standards. These "green building" guidance are aimed at providing environmentally sustainable construction. In data centers, these standards primarily target energy efficiency and conservation. We believe that we have stayed ahead of the curve on emerging green technologies and design parameters.

A leader in data center design and building projects, we credit our success to our ability to anticipate future developments. Our designs consistently deliver the reliability through redundancy that our clients expect now an the scalability and flexibility to accommodate future moves, adds and changes.

Think Green. Go Green. Live Green.

Services

Efficiency

Data Specialties Inc. designs the most energy efficient data center's at all times. Our best design practices, consider such things as:

- Selection of highly efficient UPS systems, taking into account today's load and factoring the future growth.
- Develop a (TCO) total cost of ownership with the client.
- Analyze the possible use of DC power architecture
- Install higher voltage equipment with high performance transformers
- Suggest Services with more efficient power supplies
- Complete total power audits and evaluations

Evaluate highly efficient methods of cooling such as but not limited to, In-Row, Air handling units, Water cooled, Air cooled, near heat exchanges, as well as multiply "free" air cooling methods depending on geographical locations, management of air, and airflow methods are considered.

3-D

We supply 3D Engineering Services, this is the process of developing a mathematical representation of a three dimensional view of your data center. This allows DSI the ability to integrate, renovate and refurbish projects into BIM work flow. It also enables Mechanical/ Electrical/Plumbing and other trades to work in unisom, allowing a change to such things as, Power Conduits', ductwork, cable trays and other cumbersome objects to be re-engineered in a coordinated manner, allowing project engineering to be conducted in a fast efficient manner, with documents being issued expeditiously to each and every party.

U.S. GREEN BUILDING COUNCIL LEED CERTIFIED USGBC

Friends of the Earth

the green grid member

Think Green. Go Green. Live Green.

Design / Build Construction Management Services

As the final stage in our data center design/build projects – or as a construction management contractor – DSI provides turn-key services to meet the client's performance requirements and to deliver a facility built to the approved design specifications. Our construction management services include oversight of all of the materials, equipment, personnel and specialty services required to implement the construction, coordination, permitting, start-up, testing, commissioning and final turn-over of the facility to the client.

Our services typically include:

- General contracting
- Scheduling
- Permitting
- Coordinating inspections and resolution with responsible subcontractors
- Supervising contracted trades (electrical mechanical, plumbing, fire protection, structural, carpentry, etc.)
- Provisioning materials and construction equipment
- Coordinating delivery, rigging, etc.
- Verifying work is performed in accordance with the design drawings/specifications
- Coordinating RFI from manufacturers and contracted companies and the design/ engineer of record
- Managing the project schedule
- Coordinating and enforce a quality-control program
- Implementing and enforcing a safety program
- Coordinating equipment start-up, testing and the systems integration program
- Managing completion of the project punch list
- Updating as-built drawings and warranty certificates
- Assembling owner's manuals and test reports
- Coordinating and overseeing client training and systems turn-over

More technical descriptions of our services during the various stages of our data center design/build projects follow.

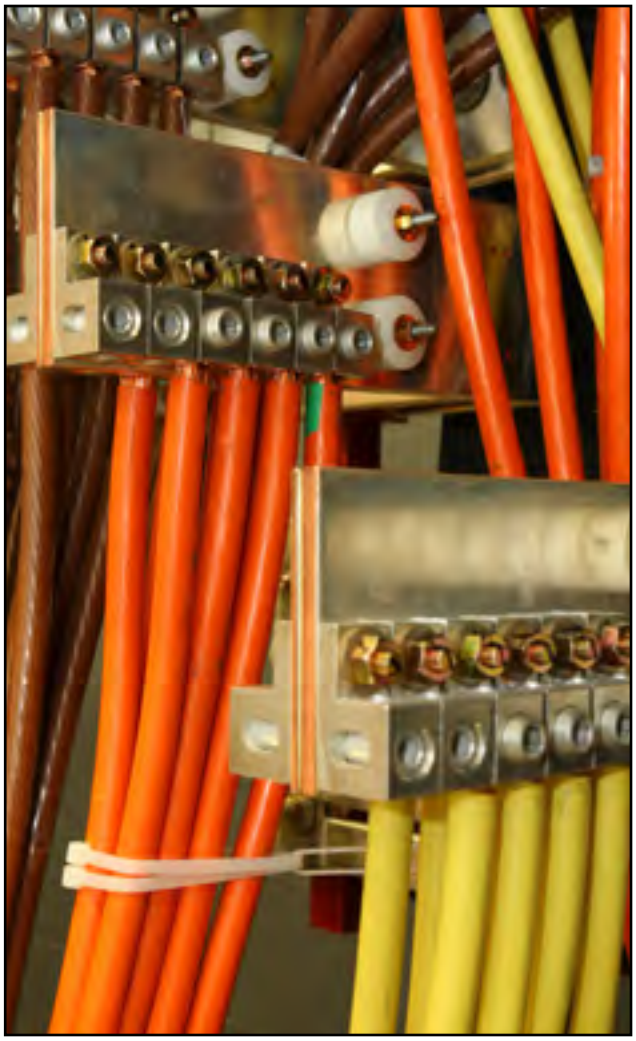
Data Specialties Inc.

Services

ELECTRICAL

In any mission-critical facility, the electrical system is the most important component in ensuring reliable, uninterrupted operations. DSI provides power systems of all types from basic to complex. We start by determining the available power capacity and compare that to our client's current and projected needs. We continuously study advances in technology and techniques, and are confident in advising our clients about the most reliable and cost-effective system configurations. Our designs for new installations, expansions and retrofits include the following critical elements:

- Uninterruptible power supply (UPS) systems
  - Double conversion
  - Rotary
  - Flywheel
- Generators
  - Diesel
  - Propane/natural gas
  - Turbines
- Power distribution units (PDUs)
  - Remote power panel
  - Starline busway
  - Power cable installation
- General lighting systems
- Grounding systems
- Remote Emergency power off (REPO) systems



RELIABILITY

A data center's reliability depends in good part upon the redundancies and backups built into the electrical systems. Data Specialties Inc. has extensive experience in designing and building data centers to meet our clients' needs and expectations—and in advising our clients in choosing the appropriate reliability level for their mission-critical data center. In addition to working with the most respected equipment suppliers in the industry, we stay abreast of changes in technology as well as lessons learned in real-world operations to ensure that our clients' data centers are as protected as possible.

MECHANICAL

Data center electrical systems, as well as the computers and other equipment they supply, generate thousands of watts of heat. Using computational flow dynamics, Data Specialties Inc. excels in pinpointing the sources and flow of heat within a data center and installing the mechanical systems necessary to keep the facility running within a safe, cost-effective and manageable temperature range. This work is critical for new designs and of the utmost importance in upgrading existing data centers. Among the mechanical systems that DSI builds into its designs and its clients' data centers are:

- Air-conditioning systems
- Water cooled systems
- Chiller plants
- Air-cooled AC units
- CRAC units
- In-row cooling
- Hot aisle containment
- High-density cooling
- Outside air economizers
- Redundant systems
- Loop Ladder systems
- Water storage

COMMUNICATIONS CABLING

Today, a company's voice and data networks are the conduits by which transactions are completed, decisions made, strategies enacted and records kept. Such mission-critical voice and data systems must be professionally installed, upgraded and protected. Data Specialties Inc. appreciates how important voice/data cabling is and secures ongoing training and certification in the latest equipment and installation methods provided by our partners and vendors. We inspect and test our installations in accordance with industry codes and manufacturers' guidelines. And we label the full installation and provide clear and complete documentation to our clients' IT managers. These measures ensure that our clients can move, add, change and troubleshoot cabling in the future. Our expertise in communications infrastructure covers:

- Cabling systems
  - Copper
  - Fiber optic
- Wireless communications
- Multi-vendor networks
- Racks, trays and cabinets
- EIA/TIA standards
- Redundant network options

Services

RAISED ACCESS FLOORING

The electrical, mechanical and cabling systems discussed earlier all entail infrastructure distributed throughout the data center. Most of the wiring and piping is installed above the racks and cabinets, while high density cooling cables can be run beneath the floor. The typical data center is built over a concrete slab subfloor that is sealed to minimize dust. A copper lattice bonding grid placed over the slab grounds all metal in the data center, and conduit laid over the floor carries power to the equipment. Posts set into the slab support the raised flooring, 24-inch (600-millimeter) square removable panels from which communications cabling can be suspended. The raised access floor panels are made of a variety of materials with combined strength and anti-static properties.

FIRE SUPPRESSION

An integral component of any data center design accounts for the geographic risks a site may pose. These can be seismic or flood or weather related. One of the highest risks, however, is common to every data center: fire. Given the heat, equipment and electrical systems concentrated within each center, the possibility of a fire is a constant concern. Data Specialties Inc. makes smoke detection and fire suppression a priority in its data center designs. As with most of the elements of today's data centers, fire detection and suppression technology is constantly being improved. DSI stays abreast of the developments and incorporates the latest and most appropriate systems into our clients' facilities. These systems can include:

- VESDA
  (very early smoke detection apparatus)
- Integrated heat and ionization detection systems
- FM-200 fire suppression systems
- Pre-action sprinkler systems
- Acaro systems
- Novac 1230 "green" systems


FIRE

Services

SECURITY

A company's data center is the lifeblood of its operations. Data Specialties Inc. recognizes that the information stored and continuously passing through the data center represents our clients' most valuable commodity. The physical structure and fire suppression systems are designed to protect our clients' data center from physical damage. Our security systems help protect the data from theft. Among the security measures that we install are:

- Point of entry control systems
  - Retina scans
  - Card key access
  - Cipher locks
  - Fingerprint recognition
- Infrared and ultrasound motion detection systems
- Cameras
- Closed-circuit television
- Exterior fences
- Building security
- Parking lot security

MONITORING

Data Specialties Inc. incorporates proven and reliable structural components into our clients' data centers. The benefits of our designs and the reliability of our security and fire protection systems depend on quick human responses. For that, data centers require state-of-the-art monitoring systems. Whether onsite, remote or co-location, we provide the monitoring capabilities our clients need to ensure that their data centers are operating efficiently and are protected from intruders of all types at all times. Among the potential risks that our clients monitor are:

- Leak detection
- Humidity levels
- Equipment performance
- Branch circuit monitoring
- Security

DATA CENTER COMMISSIONING / TESTING

Our electricians and data center engineers pride themselves in completing quality data center electrical system and voice/data communications network installations while maintaining a safe working environment. And when the data center installation is complete, DSI provides witness testing that ensures proper operation of all mission critical build systems, and as-built CAD drawings to aid in ongoing maintenance, as-needed troubleshooting and later design changes.

Our mission critical data centers have been designed for various levels of infrastructure, such as offices and campus environments and we provide the same level of quality service to all mission critical data centers our team completes.

PREVENTATIVE MAINTENANCE

At DSI, our work doesn't end after we have designed and built your data center. Our facilities are designed to provide uninterrupted operations for the applications that our customers deem mission critical. Once a data center is finished, DSI provides preventive maintenance, through a long-term service agreement, to provide the support needed to insure a fully operational facility at all times. As the designer of your facility, we have a precise understanding of your needs and how to make sure they are met.

DSI also provides periodic assessment and reporting of your data center's operations to insure that no problems develop over time that could threaten the reliability of your facility. Depending upon the specific concerns that your enterprise has, we can tailor a maintenance package that provides the greatest assurance possible that you will not have unexpected events impacting your operations. Whether DSI built your facility or not, no company has more experience preserving the reliability of your data center than DSI. We have partnerships with all of the leading data center equipment vendors and we can work with them, and with you, to design a long-term approach with an eye on preserving your equipment so as to insure that you receive full value for your data center investment.

Services

PREVENTATIVE MAINTENANCE continued

More than anything else, DSI looks to assume responsibility for the day-to-day physical operations of your data center. Whether it's load balancing, making sure your UPS batteries are still functioning properly, preserving the integrity of your cooling system, or simply making sure your data center stays clean and well-managed, DSI will work with you to provide a single point of contact for the service and maintenance of your facility. We provide comprehensive reporting and record-keeping and insist that your organization has a specific DSI representative that they can turn to at any time, to address any data center questions or concerns.

Services provided:

- Generator
- Automatic Transfer Switches
- UPS Systems
- Battery Cabinets
- PDU Systems
- Mechanical
- Fire Suppression Systems
- Electrical Equipment
- Data Center Cleaning
- Infrared and Thermo testing

Experience

For 24 years, we have served clients in a broad range of industries. We are known for our turn-key, full-service data center design/build capabilities, and have completed hundreds of such projects. We also frequently fulfill more focused contracts for facility assessments, voice and data cabling, electrical system plan/install, emergency recovery response, construction management and ongoing maintenance services.

Our relationships begin with the quest for a full understanding of what our clients need from their data center projects. As illustrated in the following case studies, data centers are more than a collection of computers in a climate-controlled setting: they are the very heart of an organization's operations. By viewing each one from the client's perspective, we complete our projects to best meet the customer's needs and to exceed their expectations.

Experience

Venyu Solutions

Data Center | Baton Rouge, LA

The new Venyu BTR2 Data Center is being constructed in the Bon Carre Technology complex. The site for BTR2 is an old multi-screen movie theater. The combination of square footage and height made this an appropriate site for Venyu's expansion. The height of the existing facility allowed for the inclusion of a second floor. The second floor space is being used to house all of the electrical and mechanical distribution systems for the First Floor data center. A small addition was added adjacent to the existing structure to house electrical system and the emergency generators. The First Floor data center is capable of housing 275 racks of IT equipment with a maximum load of 1.8mW in an N+1 configuration.

The critical electrical system consist of four 1mW emergency generators which support four 600kW UPS modules which are distributed to the IT load via 16 high efficiency transformers. Power is distributed to the IT load via overhead buss. Cooling is provided from four 180 ton air cooled chillers which feed eight air handling units to supply cooling to the first floor IT load. All electrical and mechanical components are configured in an N+1 manner to insure reliability and availability for Venyu and their clients.

Working within the confines of an existing facility with no as-built documentation has at time poised some interesting challenges. All of the existing infrastructure components had to be located and then relocated in order for the project to proceed. The existing electrical, sewer and water services had to be relocated in order for the addition to be built. Given all the challenges presented to the DSI team the project is on time and budget and is expected to be completed in March of 2014.


GENERAC
INDUSTRIAL
GENERAC

Experience

Communications Test Design Inc. (CTDI)

Design/Build | Tolleson, AZ

Complete build out of a 250,000-square-foot building shell for COX cable set top box repair and logistics. The project consisted of approximately 15,000 of TI / Office area for the management team. The typical shift count is about 150 people so DSI had to build 2 groups of gang bathrooms and a large breakroom for the employees. The balance of the warehouse build included a 5000-square-foot repair room with test benches and cabling for repairing the boxes, over 150 electrical cord drops for production lines, raptor test stations, shipping and receiving stations. The project required a new 1600 amp utility service with an 800kw emergency standby generator and a 50kva UPS. Several electrical panels and transformers were installed for the branch circuiting to the new headend room, PKI room, server room and mechanical equipment. DSI also installed CAT 6 cabling, fiber optic hubs / cable and RG6 cabling to all testing stations. In order to facilitate the operation and employees comfort ability, DSI installed eight 5-7 ton rooftop hvac package units and ten 20 ton rooftop hvac package units including structural upgrades for support of these units. DSI also installed 12 dock levelers and fully insulated the building roof underside with R19 and white scrim sheeting. The project was successfully completed in 15 weeks and within the client's budget.


DSI
DSI

Experience

Communications Test Design Inc. (CTDI)

Design/Build | Fontana, CA

Complete build out of a 135,000-square-foot building shell for Time Warner cable set top box repair and logistics. The project consisted of approximately 5,000 of TI / Office area for the management team. The typical shift count is about 100 people so DSI had to build 1 gang bathroom and a large breakroom for the employees. The balance of the warehouse build included a 7000-square-foot repair room with test benches and cabling for repairing the boxes, over 100 electrical cord drops for production lines, raptor test stations, shipping and receiving stations. The project required a new 1600 amp utility service upgrade and a 20kva UPS. Several electrical panels and transformers were installed for the branch circuiting to the new headend room, PKI room, server room and mechanical equipment. DSI also installed CAT 6 cabling, fiber optic hubs / cable and RG6 cabling to all testing stations. In order to facilitate the operation and employees comfort ability, DSI installed eight 5-7 ton rooftop hvac package units including structural upgrades for support of these units. The project was successfully completed in 7 1/2 weeks and within the client's budget.

Experience

Communications Test Design Inc. (CTDI)

Design/Build | Davenport, FL

Complete build out of a 155,000-square-foot building shell for Comcast cable set top box repair and logistics. The project consisted of approximately 4,000 of TI / Office area for the management team. The typical shift count is about 150 people so DSI had to build 2 sets of gang bathrooms and a large breakroom for the employees. The balance of the warehouse build included a 9000-square-foot repair room with test benches and cabling for repairing the boxes, over 120 electrical cord drops for production lines, raptor test stations, shipping and receiving stations. The project required a new 1600 amp utility service upgrade (including a new main switchboard and a 500kva utility transformer) and a 20kva UPS. Several electrical panels and transformers were installed for the branch circuiting to the new headend room, PKI room, server room and mechanical equipment. DSI also installed CAT 6 cabling, fiber optic hubs / cable and RG12 cabling to all testing stations. This test site required almost 100,000 feet of RG12 in order to meet their testing criteria. In order to facilitate the operation and employees comfort ability, DSI installed two 60 ton air turn over units in the warehouse which stood 32' tall, two 10 ton, three 5 ton, and three 3.5 ton, split system hvac units for the TI areas including structural upgrades for support of these units. The project was successfully completed in 6 weeks and within the client's budget.

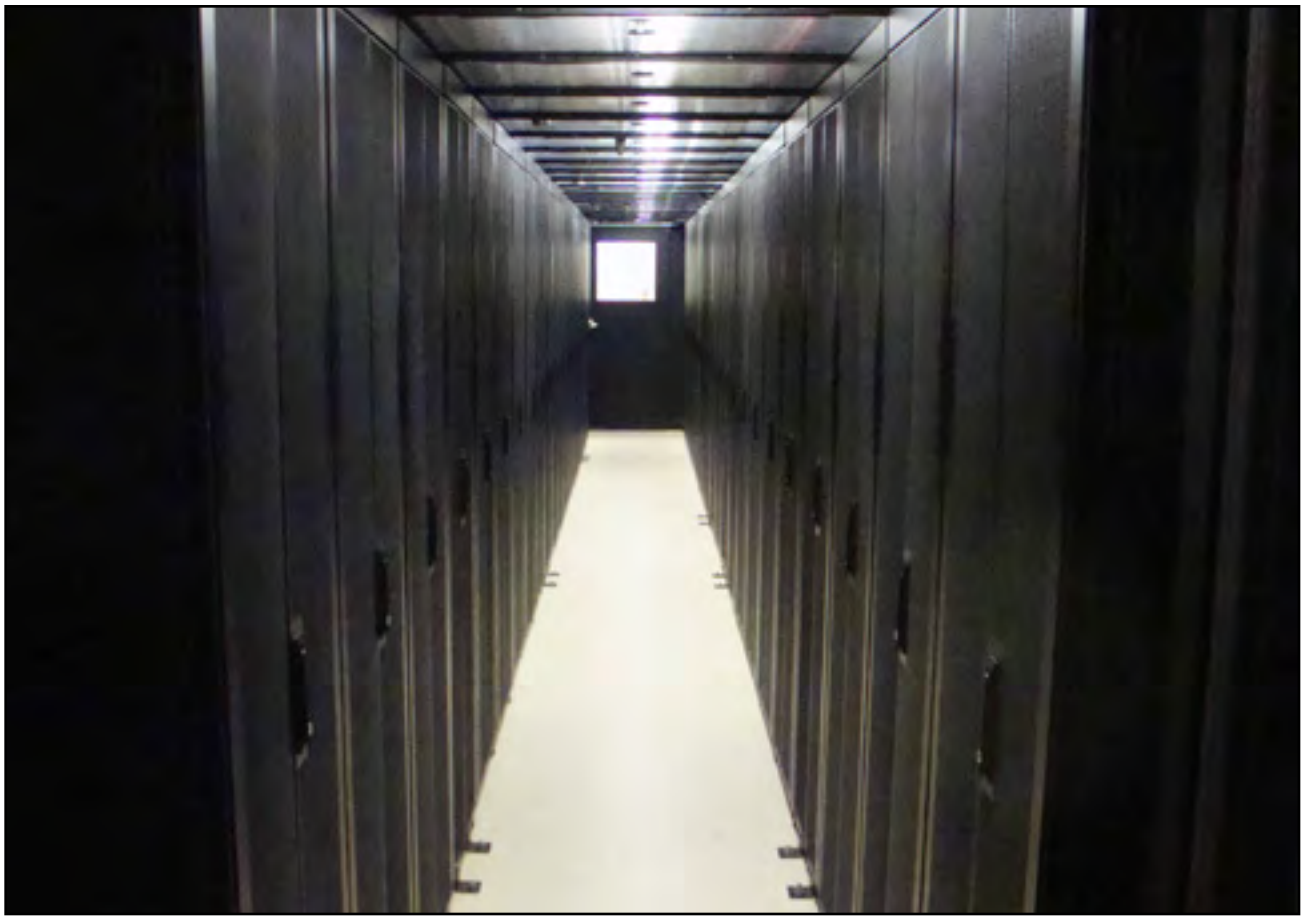
Experience

John Muir Health

Data Center Build | Walnut Creek, CA

In 2011, Data Specialties Inc. performed site assessments for all four John Muir Health data center sites in the East Bay. With the successful completion of the site assessments, John Muir Health selected DSI for the build out of their data center at their Walnut Creek site. This data center was implemented to support John Muir Health's roll out of their Epic system. This build out included the following scope of work:

- PROVIDED BIM MODELING OF DC TO COORDINATE THE INSTALLATION OF THE EQUIPMENT IN A TIGHT SPACE.
- PROVIDE AND INSTALL TWO SYMMETRA PX500 UPS SYSTEMS WITH MAINTENANCE BYPASS CABINETS
- PROVIDE AND INSTALL FOUR PSX APC PDU'S
- PROVIDE AND INSTALL A (34) CABINET FULL HOT AISLE CONTAINED APC POD
- PROVIDE AND INSTALL SIX APC IN ROW CHILLED WATER AIR CONDITIONERS
- PROVIDE AND INSTALL A NEW EPSMS SYSTEM FOR THE NEW EQUIPMENT
- PROVIDE AND INSTALL A NEW HONEYWELL LEAK DETECTION SYSTEM
- PROVIDE FIBER CABLING FROM EXISTING DC TO NEW DC WHICH INCLUDED TWO 24 STRAND 50 MICRON ARMORED MULTIMODE FIBER
- PROVIDE AFTERMARKET CONTAINMENT TO FILL GAPS IN CUSTOMER PROVIDED EMC CABINETS
- PROVIDE FULL TESTING AND COMMISSIONING OF ALL NEW EQUIPMENT



Experience

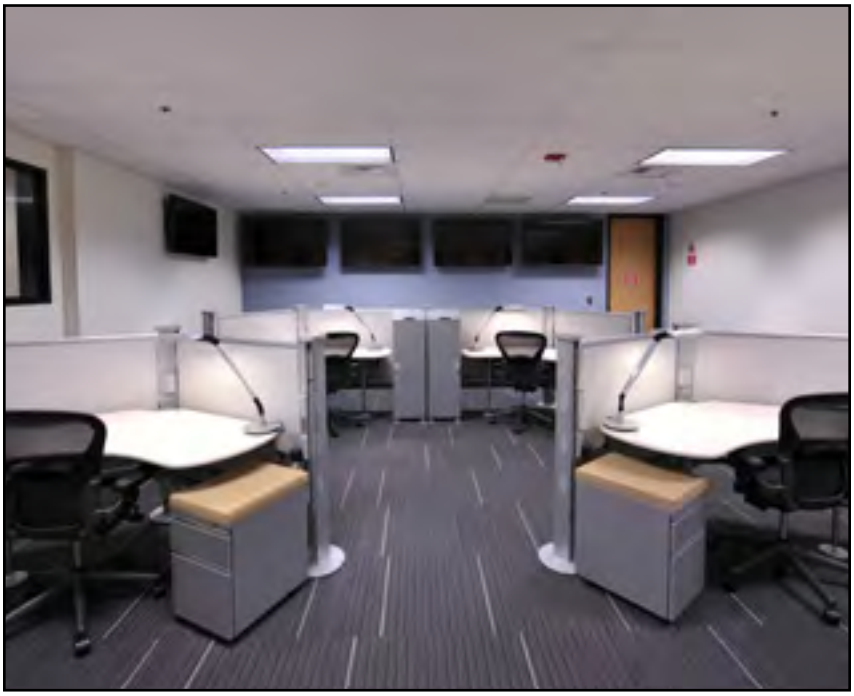
City of Hope

IBM | Irwindale, CA

Data Specialties Inc., in conjunction with IBM, modernized an existing facility to house the City of Hope's data center. The project includes 8,000 sq. ft. of white space and 12,000 sq. ft. for staff, including a Network Operations Center, War Room, Labs, Staging Room and staff area. The design included using scalable UPS topology and insfrastructure cabinets from APC. The cooling system was updated using hot/cold aisle and return air pressure.

DSI services included:

- SCHEMATIC DESIGN FOR BORRO APPROVAL
- FAST TRACK DESIGNS AND INSTALLATION
- COMPLETE RENOVATIONS F IT EQUIPMENT SPECS
- NEW APC MONITORING SYSTEM
- SECURITY SYSTEMS
- WAR ROOM WITH AUDIO VISUAL
- TESTING AND CERTIFICATION
- CONSTRUCTION MANAGEMENT SERVICES




DANGER
HIGH
VOLTAGE

Data Specialties Inc.

Experience

California Department of Technical Services (DTS)

Design and Engineering | Sacramento, CA

California Department of Technical Services (DTS) was originally known as the Teale Data Center. It is the largest State of California data center and is approximately 40,000 sq. ft.

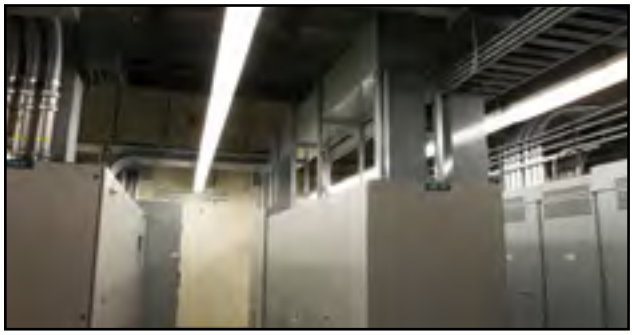
Our Scope of work has included but not limited to the following:

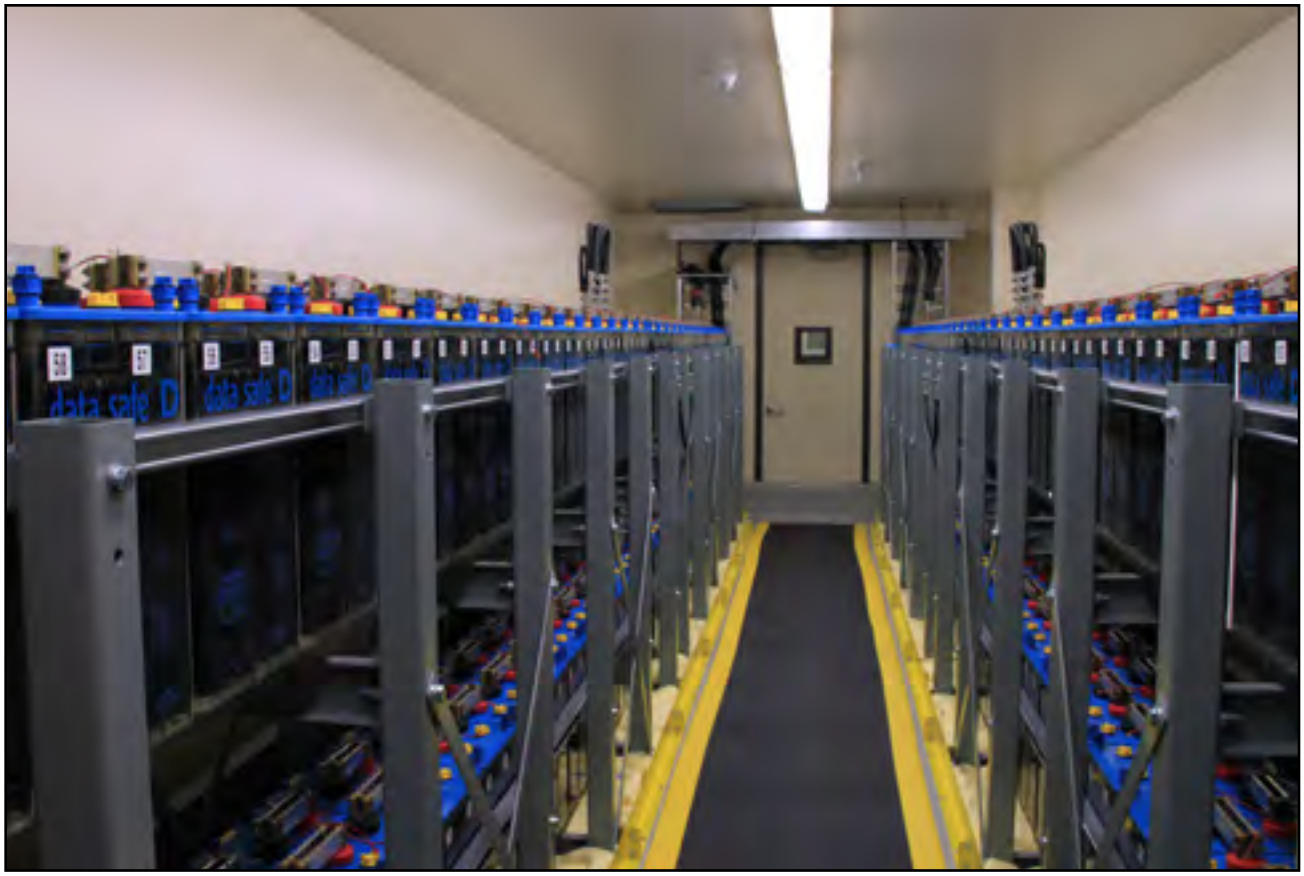
ELECTRICAL UPGRADES

- DESIGN AND ENGINEERING FOR A NEW 1000 KVA UPS SYSTEM, UTILITY SERVICE TRANSFORMER, MULTIPLE SWITCHGEAR CABINETS INCLUDING BYPASS, MULTIPLE STATIC SWITCHES AND MULTIPLE FPC'S FOR POWER DISTRIBUTION
- INSTALLATION OF ALL CONCRETE PADS FOR NEW SWITCHGEAR AND UPS'S
- REMOVE AND REPLACE (3) EXISTING 14 YEAR OLD 1000 KVA UPS'S WITH NEW MORE EFFICIENT LIEBERT 1,100 KVA UPS'S WHILE KEEPING THEM UP AND OPERATIONAL AT ALL TIMES
- INSTALLATION OF NEW WET CELL BATTERY SYSTEM AND ALBERS BATTERY MONITORING SYSTEM
- UPGRADE ALL DC DISCONNECTS FROM 2500 AMPS TO 3000 AMPS WHICH INCLUDES ALL NECESSARY WIRE UPGRADES
- INSTALLATION OF ALL CONDUIT AND WIRING
- COMMISIONING AND START-UP OF ALL EQUIPMENT
- GROUNDING OF RAISED FLOOR AND ASSORTED EQUIPMENT CABINETS ON RAISED FLOOR
- MISC WIRING FOR NEW CRAH UNITS

RAISED FLOOR CABINET CONTAINMENT

- WORK WITH STATE FIRE MARSHAL FOR EQUIPMENT AND MATERIAL APPROVAL
- PROVIDE AND INSTALL COLD ISLE CONTAINMENT FOR (23) ROWS OF EQUIPMENT
- COLD ISLE CONTAINMENT TO INCLUDE: (2) SLIDING CLEAR DOORS FOR EACH ROW, POWDER COATED UNISTRUT, AIR BARRIER BLANKING PRODUCT, MAGNETIC STRIP FASTNERS, AND HORIZONTAL DROP AWAY PANELS
- ALL WORK PERFORMED WHILE KEEPING THE DATA CENTER OPERATIONAL AT ALL TIMES





Experience

Catholic Health Initiatives

IBM Business Partner | Richardson, Texas

Business Partner IBM

Catholic Health required a new data center in the Midwest. Working with CHI exhausting multiple sites for site feasibility, available power, communications infrastructure and total operating cost – a site in Richardson, TX was selected.

DSI provided fix up services including:

- SITE ASSESSMENT
- CAPITAL / OPERATING COST ANALYSIS
- DATA CENTER SITE FIT UP
- NETWORK CABLING
- POWER DISTRIBUTION
- GROUNDING SYSTEMS
- MONITORING SYSTEMS
- CONSTRUCTION MANAGEMENT SERVICES


MGE

Experience

AAA Northern California, Nevada & Utah Insurance Exchange Data Center

Remodel | Arizona

AAA Northern California, Nevada & Utah Insurance Exchange's data center consolidation strategy required building a new facility within their existing Arizona facility. The remodel was designed to increase space efficiency and reduce energy consumption.

Data Specialties Inc. (DSI), a sub-contractor to IBM, designed and built the 5,000 square foot data center, which included dual-path 2N electrical infrastructure and a high-efficiency in-row cooling system. The project implementation was fast-tracked, with a six-month timeline for design, permits and construction. DSI completed the remodel without impacting existing operations. The project was completed on time and within budget.


480 VOLTS

Experience

Mercury Insurance Group

Design/Build | Brea, California

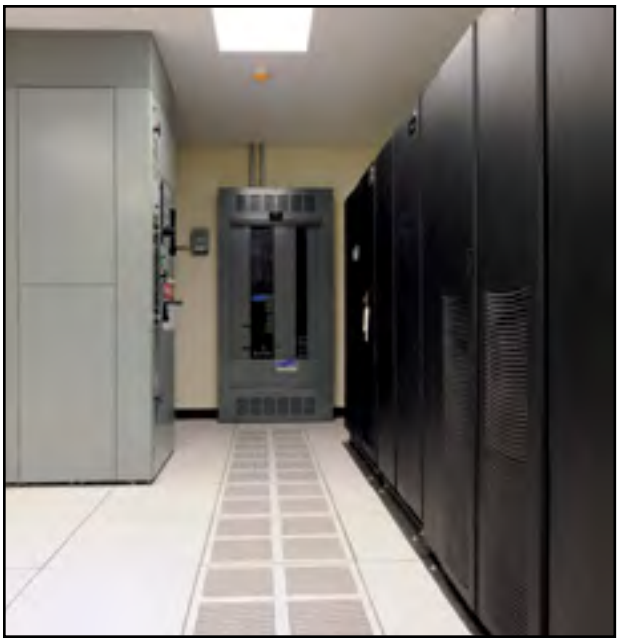
Data Specialties Inc. were selected from stiff competition to complete the second major project for Mercury Insurance. The Scope of this project was to design/build and construct a new 2 floor building to house UPS and critical switchgear; the project encompassed the following:

- CONSTRUCT A NEW 2 STORY UPS BUILDING AND SECOND FLOOR ADDITION
- SITE CONSTRUCTION WORK REQUIRED TO PROVIDE ELECTRICAL FROM THE MAIN ELECTRICAL SERVICE/GENERATOR TO THE NEW UPS STRUCTURE.
- INSTALL NEW ELECTRICAL DISTRIBUTION EQUIPMENT
- 750 KVA, UPS, BATTERY AND MAINTENANCE BYPASS SWITCH
- RPP AND POWER CABLES
- NEW 10 TON HVAC SYSTEM FOR UPS ROOM (SINGLE UNIT)
- TRANSFER (1) PDU AND (4) CRAC UNITS TO "B" SOURCE OF POWER
- EMERGENCY POWER OFF MODIFICATIONS
- FIRE AND LIFE SAFETY SYSTEM FOR NEW UPS STRUCTURE AND SECOND FLOOR ADDITION
- COMMISSIONING, TRAINING, LOAD SHED TESTING, ETC.

Experience

Securitas Security Services

Data Center Consolidation |
Westlake Village, CA



Data Specialties Inc. was selected to design and build Securitas Security Services' new West Coast Data Center. The project required consolidating two existing centers in one larger, new facility designed to accommodate anticipated future growth and computing technologies without interruption. In assessing the existing data centers, DSI discovered that the UPS and generator were operating at 83 percent and 92 percent capacity, respectively, and could not support future growth.

DSI designed the new facility's infrastructure to support current and future server consolidation and to maximize energy efficiencies for the foreseeable future. The project included installation of scalable UPS, power distribution and HVAC mechanical systems without disrupting Securitas' 24x7 data processing operations.

DSI's services included:

- SITE ASSESSMENT
- ENERGY ANALYSIS
- ROUGH-ORDER-OF-MAGNITUDE PRICING
- DESIGN/BUILD CONSTRUCTION
- COMMISSIONING


DANGER
ENERGIZED
EQUIPMENT

Experience

Securitas Security Systems

New UPS/Power Distribution and Monitoring System | Parsippany, NJ

After successfully constructing the data center for Securitas West Operation Center (WOC), Securitas requested Data Specialties Inc. to upgrade the Securitas East Operation Center (EOC). The two sites are used for disaster recovery and can failover to either site without interruption to company operations.

In assessing the existing data center, DSI discovered that current UPS system was operating at 87 percent and unable to add additional equipment. The project included installing a new scalable UPS system, redundant power distribution and a monitoring system for the data center infrastructure.

DSI's services included the following:

- SITE ASSESSMENT
- ENERGY ANALYSIS
- ROUGH-ORDER-OF MAGNITUDE PRICING
- COMMISSIONING

Experience

Tucson Electric Power (IBM Business Partner)

Data Center Design/Build | Tucson, AZ

IBM, in conjunction with Data Specialties Inc., was hired to replace Tucson's existing temporary data center – housed in a trailer – with a more permanent, state-of-the-art facility. We designed and built the new data center to include a network operations center, electrical room, staging room, generator/mechanical pad area and a riser room. To satisfy the client's requirement for a higher density center, we installed in-row coolers for sustained temperature control. Once the construction was complete and the infrastructure in place, we tested and commissioned the electrical and mechanical systems. We also installed a monitoring system for quick notification and response.

DSI's services included:

- SITE ASSESSMENT
- STATEMENT OF REQUIREMENTS
- SCHEMATIC DESIGN
- ROUGH-ORDER-OF-MAGNITUDE PRICING
- COMPLETE DESIGN AND BUILD
- MONITORING SYSTEM
- COMMISSIONING


Carrier


IGER
RGIZED
PMENT

Experience

Swedish Medical Center (IBM Business Partner)

Data Center Design/Build | Seattle, WA

When the Swedish Medical Center set out to build its new, world class data center in the heart of Seattle, it stipulated that the facility was to be designed to be flexible and scalable enough to accommodate future opportunities and growth. IBM, in conjunction with Data Specialties Inc., addressed those needs and desires and built a new data center complete with a network operations center, UPS room, riser room, staging room and a break room. The data center included an FM-200 gaseous system, pre-action system, and redundancy in the UPS system fed by redundant risers in the building. Once the construction was complete and the infrastructure in place, we tested the system for redundancy and functionality.

DSI's services included:

- SITE ASSESSMENT
- STATEMENT OF REQUIREMENTS
- SCHEMATIC DESIGN
- ROUGH-ORDER-OF-MAGNITUDE PRICING
- COMPLETE DESIGN AND BUILD
- CONSTRUCTION MANAGEMENT
- COMMISSIONING

Experience

Jacuzzi Brands

Data Center Upgrade | Chino, CA

Business Partner IBM

Data Specialties Inc., in conjunction with IBM, was hired by Jacuzzi Brands/IBM to upgrade its 350,000-square-foot data center in Chino, CA. For the project, DSI installed new walls, doors, ramp, a raised computer floor, new HVAC units with condensers, new UPS, new standby generator with automatic transfer switch. Also installed were new equipment cabinets and racks, patch panel cabling and fiber between the cabinets, power cables under the raised floor, a new FM-200 fire suppression system, and new leak detection system around the perimeter walls of the data center. The data center is maintained by DSI under a two-year preventative maintenance contract.

Through our relationship with Jacuzzi Brands, DSI has provided:

- DUE DILIGENCE
- MASTER PLANNING
- BUDGET PRICING
- COMMISSIONING
- SYSTEM UPGRADES
- PREVENTATIVE MAINTENANCE


KOHLER

Experience

Automatic Data Processing

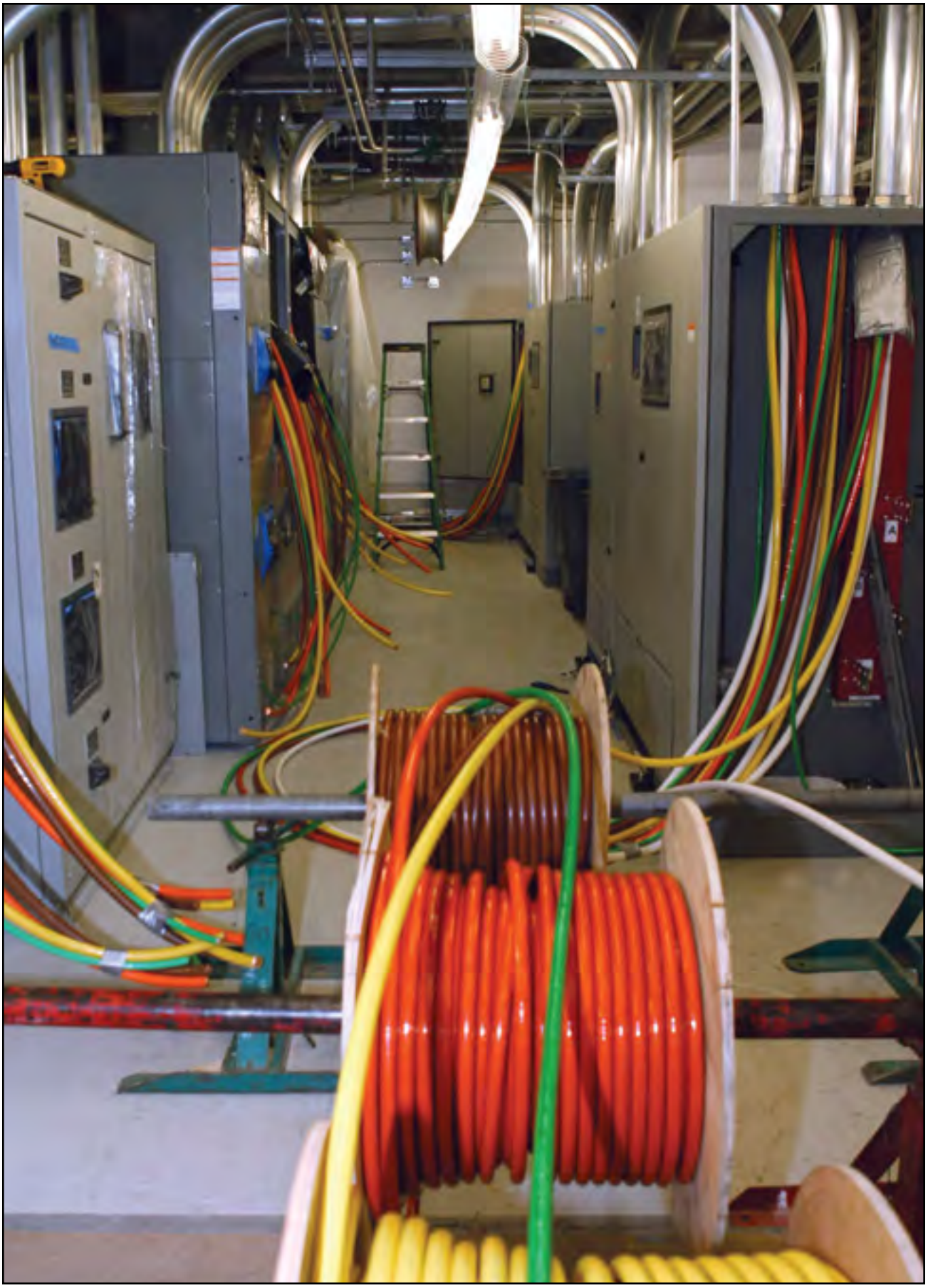
Data Center Expansions | La Palma, CA

Since 1994, Data Specialties Inc. has been working with Automatic Data Processing in La Palma, CA, to ensure that the company's data center keeps pace with its operations. DSI initially was hired to install a new 1200 kW diesel standby generator to provide backup power for the facility.

In 2005, we installed a new MGE 300 kW/225 kVA UPS and batteries to replace an old DP series system.

Throughout the projects, our services also have included:

- DUE DILIGENCE
- MASTER PLANNING
- BUDGET PRICING
- COMMISSIONING
- SYSTEM UPGRADES
- EMERGENCY SERVICE
- DESIGN SERVICES



Data Specialties Inc.

Experience

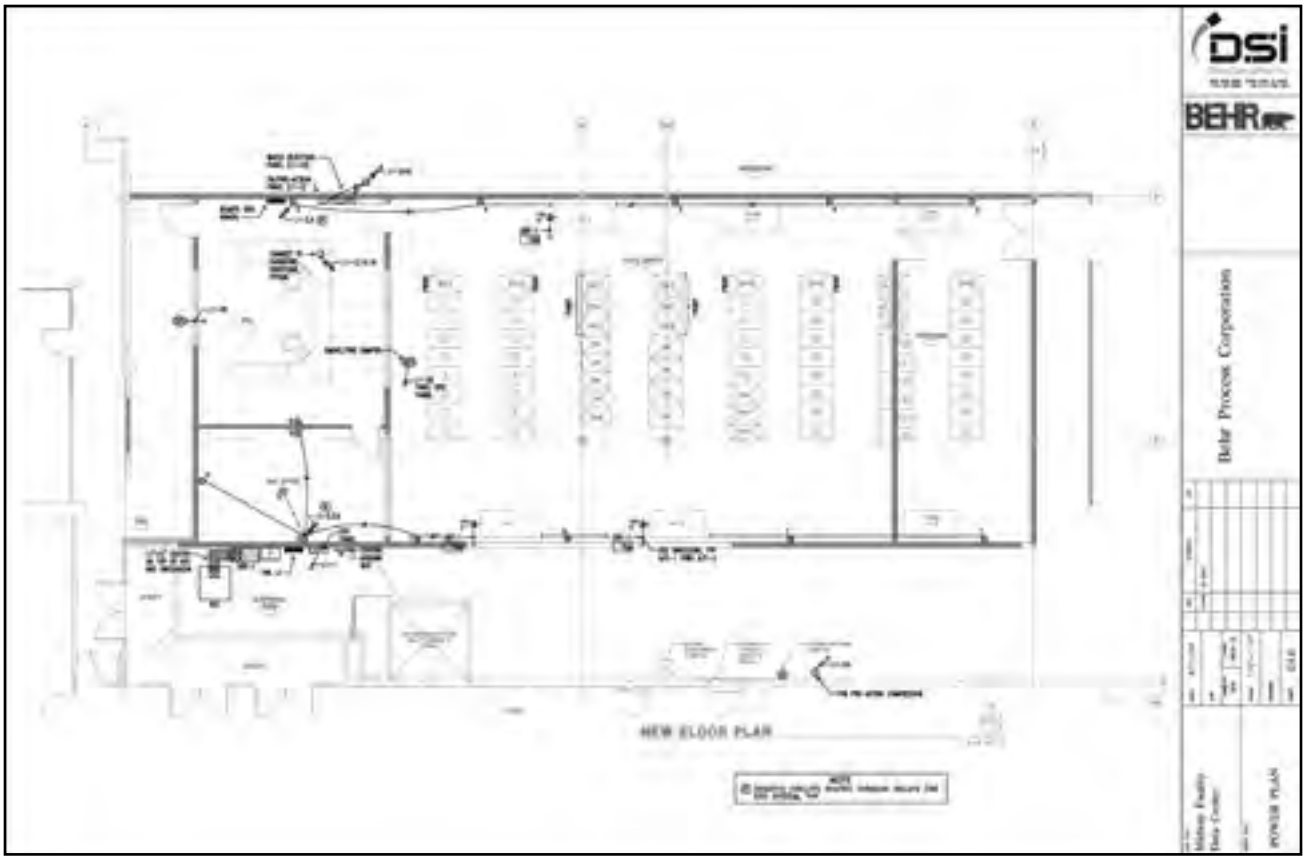
Behr Process Corporation

New Corporate Data Center |
Santa Ana, CA

Behr Paint selected Data Specialties Inc. to perform design and build service to construct the corporate data center. This data center was located in existing warehouse space that was converted to support Behr's IT requirements.

Completed on a fast-track schedule to accommodate Behr's conversion to its SAP software platform, the data center project included:

- ENGINEERING
- CONSTRUCTION SERVICES
- STANDBY GENERATOR
- DUAL UPS SYSTEM
- STRUCTURAL ROOF MODIFICATIONS FOR MECHANICAL EQUIPMENT
- MONITORING
- NOC AND CONFERENCE CENTER
- RAISED FLOOR
- FIRE SUPPRESSION – FM200 AND PRE-ACTION SPRINKLER SYSTEM
- COMMISSIONING AND WITNESS TESTING OF ALL MAJOR SYSTEMS


DSI
BEHR
Behr Process Corporation
NEW FLOOR PLAN

Experience

Las Vegas Review Journal

Data Center Design/Build | Las Vegas, NV

Business Partner IBM

Not only had the Las Vegas Review Journal's existing data center out of space, its cooling capacity was overloaded. Data Specialties Inc., in conjunction with IBM, designed a redundant, state-of-the-art data center that accommodated the immediate growth needs and ensured that the client would be able to expand its data center with its business needs. The new data center included a network operations center, print room, two UPS rooms, and electrical room, riser room, storage room and a generator/mechanical pad area. Once the construction was complete and the infrastructure in place, we tested the system for redundancy and functionality.

DSI's services included:

- SITE ASSESSMENT
- STATEMENT OF REQUIREMENTS
- SCHEMATIC DESIGN
- ROUGH-ORDER-OF-MAGNITUDE PRICING
- COMPLETE DESIGN AND BUILD
- COMMISSIONING
- MONITORING SYSTEM
- MAINTENANCE PROGRAM

Experience

NMCI Project – US Navy

Server Farm Design and Build | Multiple Naval Bases

EDS was awarded the largest defense contract at the time to design and construct a new network to support the IT needs of the Navy. EDS selected regional teams to implement the data center construction services.

Data Specialties Inc. was the design and build contractor that constructed the server farms at the following locations:

- POINT MAGUE
- PORT HUENEME
- CHINA LAKE
- 32ND STREET (SAN DIEGO)
- FALLON
- CAMP PENDLETON

These server farms included:

- UTILITY POWER
- DUAL UPS SYSTEMS
- STANDBY GENERATOR
- COMPUTER GRADE AIR CONDITIONING
- RAISED FLOOR
- COMMUNICATION CABLING
- FIRE AND LIFE SAFETY

Once the server farms phase of the project was completed, DSI was tasked with providing electrical systems for each IDF. DSI was given the responsibility to organize and facilitate the electrical work in 10,000 IDF closets on bases throughout the western United States. Our management team created processes that enabled the project team to manage this very large enterprise and to maintain accurate records of all installations. Data Specialties accomplished this project while staffing multiple bases simultaneously.

***Photos and plans for these military installations are not available for publication.**


DANGER

Experience

Multiquip

Data Center Upgrade | Carson, CA

Data Specialties Inc. planned and installed key cabling and electrical equipment to update Multiquip's Carson, California facility. Among tasks we completed were the recabling – including new cable, jacks, patch panels, equipment racks, and ladder rack – of the facility's first and second floors. DSI also installed new:

- FM-200 SYSTEM AUTOMATIC TRANSFER SWITCH, UPS AND BATTERIES
- LIEBERT COOLING SYSTEMS
- EPO SYSTEM
- POWER DISTRIBUTION
- PREVENTATIVE MAINTENANCE PACKAGE

Our services also have included:

- SITE ASSESSMENT
- MASTER PLANNING
- ROUGH-ORDER-OF-MAGNITUDE PRICING
- COMMISSIONING

Experience

Pennsylvania Department of Transportation

Data Center Crisis Response | Mechanicsburg, PA

Business Partner IBM

A fire at the Pennsylvania Department of Transportation's (PennDOT's) Mechanicsburg facility partially damaged the organization's data center. In the process, the center also became contaminated with PCBs and asbestos. Working with the IBM Crisis Response Team, Data Specialties Inc. constructed a new, 7,500-square-foot data center in an existing IBM facility nearby.

The project, which was completed in 13 days, included:

- BUSINESS RECOVER SERVICES
- CONSULTING SERVICES
- SITE ASSESSMENT
- DESIGN SERVICES
- ELECTRICAL INSTALLATION
- COMMUNICATIONS INFRASTRUCTURE
- CONSTRUCTION MANAGEMENT
- MECHANICAL SYSTEMS


DSI

Experience

Helzberg Diamonds

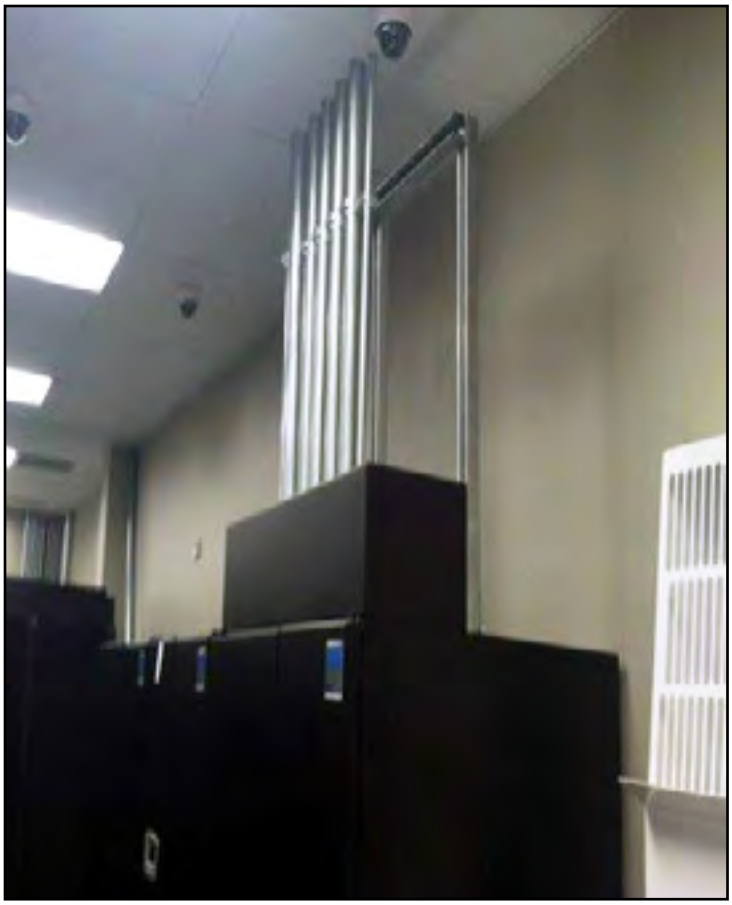
Data Center Renovation | North Kansas City, MO

Business Partner IBM

The data center at Helzberg had grown to full capacity and was in need of renovation to allow for future growth and additional capacity. Given the constraints of the Helzberg campus it was determined that a renovation rather than a new data center was the best plan of action. This presented the interesting challenge of work within a live active data center through the course of construction. The goal of the renovation was to install a new UPS and electrical distribution and to rotate the orientation of the IT equipment racks ninety degrees in order to free up space and to align the rack in a proper cold aisle-hot aisle distribution. An additional constraint on the project were seasonal no work periods due to high volumes of sales and IT activity. The work freeze period had to be accounted for in the construction schedule and coordinated closely with the client.

In order to accomplish the goals of the client a number of transitional moves had to be made in order to free up space to establish a first phase work zone. Luckily the Helzberg IT equipment is design and configured in an N+1 configuration which allowed for equipment moves within any downtime. Once the phase one work zone was established DSI was able to demolish half of the existing data center and begin reconstruction. The renovation consisted of removing the existing raised access floor and replacing the existing ceiling. The existing electrical infrastructure was given a thorough inspection and all non-critical loads were removed from the distribution to concentrate on servicing the data center. A new 150kVA UPS was installed along with four remote power panels (RPP) for power distribution to the IT racks. Direct expansion in-row cooling was deployed for the new primary cooling system within the data center. An existing ceiling mounted cooling system was kept to provide backup in the future.

Once the first phase of construction was complete a second transitional move was made to relocate the IT assets from the temporary location into the new IT racks. The second phase of construction was then completed which consisted of additional racks, in-rows cooling, and RPP's to complete the data center. All new network fiber and copper distribution were included in the design to complete the transformation of the data center. The entire project was completed without any unplanned outages.



Experience

Princeton Baptist Medical Center

New Data Center | Birmingham, AL

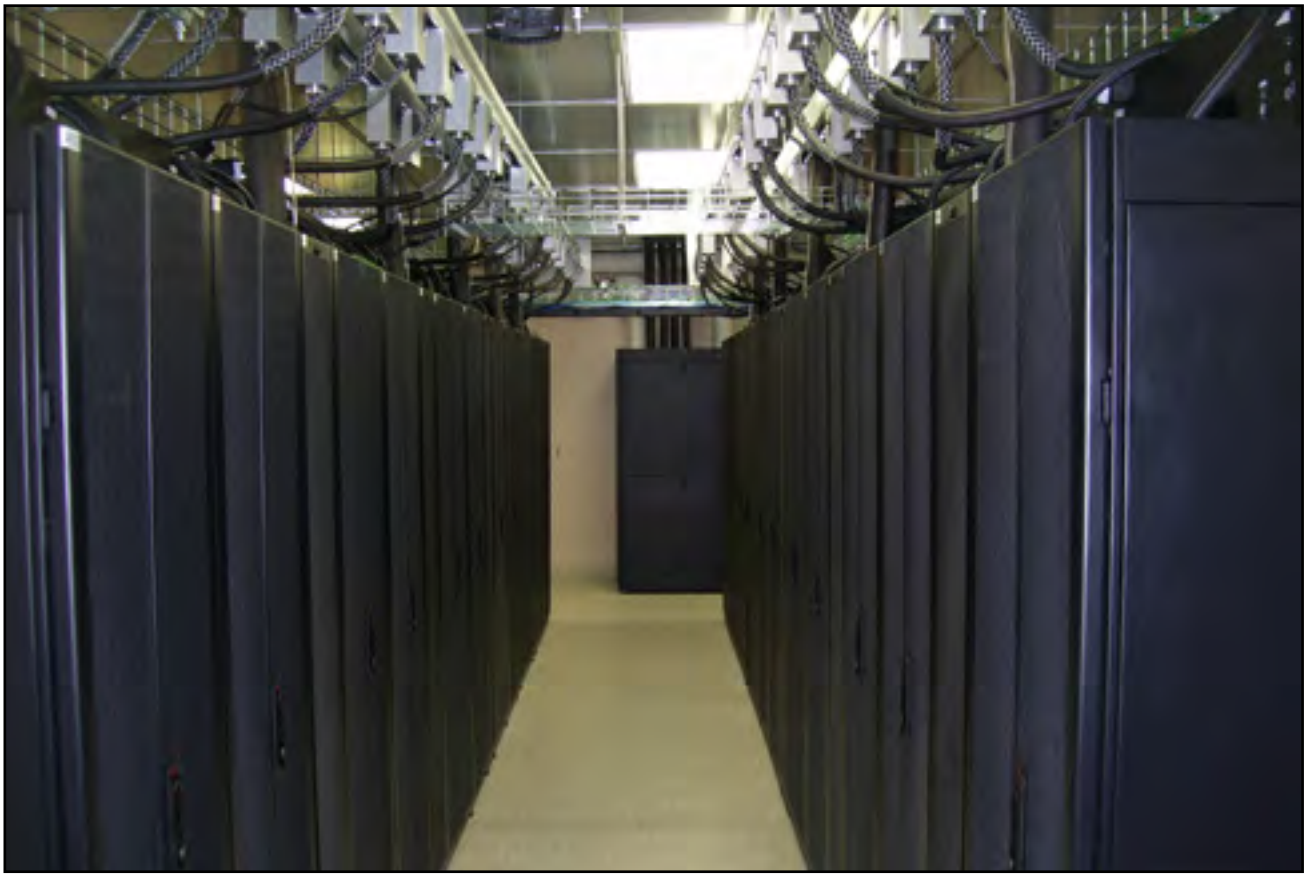
Business Partner IBM

The data center constructed at the Princeton Baptist Medical Center was designed as a replacement to an existing off campus facility. The new data center was designed to be constructed in phases so that a new clinical application could be deployed across the hospital system. The first phase of construction consisted to the complete build out of the data center square footage but only a small portion of the electrical and cooling infrastructure. Due to the time constraints of the first phase DSI leveraged the existing hospital UPS system to support the new IT load.

The second phase of construction has been completed and consist of installing a new UPS to support the data center only. Full implementation of racks and cooling for two thirds of the full data center deployment. The new 250kVA UPS was fed from the hospitals critical load center in order to be fully supported by the existing generator farm. Load is distributed to the data center through three 225kVA power distribution units (PDU) with a fourth unit planned for phase three. Cooling is provided by the hospitals existing chilled water plant into the data center via 2 cooling distribution units (CDU) which in turn feed 9 in-row cooling units.

All power within the data center is distributed via overhead buss from the PDU's. The completed second phase houses 21 racks of IT equipment.

The third phase of construction will take the data center to a fully built out condition and will include a second UPS module, one additional PDU and four more in-row coolers. Additionally eleven more racks will be installed to complete the data center.



Experience

HMSA

Data Center Upgrade | Oahu, HI

Data Specialties Inc., in conjunction with IBM, upgraded an existing data center for HMSA. The project included a 2N UPS system installed in UPS enclosures and a 2N 1000kW emergency generator system with paralleling switchgear to support HMSA's existing data center and building loads. We constructed a new platform above the roof of the existing mechanical equipment building to place the generators and UPS enclosures due to space constraints. For the generators we constructed an above ground fuel tank, filling station and pumping system.

DSI/IBM services included:

- SITE ASSESSMENT
- STATEMENT OF REQUIREMENTS
- SCHEMATIC DESIGN
- ROUGH-ORDER-OF-MAGNITUDE PRICING
- PROPERTY VARIANCE
- COMPLETE DESIGN AND BUILD
- UTILITY SERVICE UPGRADE
- COMMISSIONING

Experience

Sterling Bank

Data Center Upgrade | Spokane, WA

Business Partner IBM

Data Specialties Inc., in conjunction with IBM, modernized an existing data center for Sterling Bank. The project included a 2N UPS system and a 2N emergency generator system to support Sterling Banks's data center loads. The data center was reconfigured to incorporate a hot aisle containment system with high density In-Row Coolers working in team mode to supply cooling to the cabinets. The design included a new chiller system with 100% economizing mode that is also expandable to grow along with Sterling Bank.

DSI/IBM services included:

- SITE ASSESSMENT
- STATEMENT OF REQUIREMENTS
- SCHEMATIC DESIGN
- ROUGH-ORDER-OF-MAGNITUDE PRICING
- COMPLETE DESIGN AND BUILD
- COMMISSIONING

STERLINGBANK


"We Build Data Centers"

Experience

Queens Medical Center

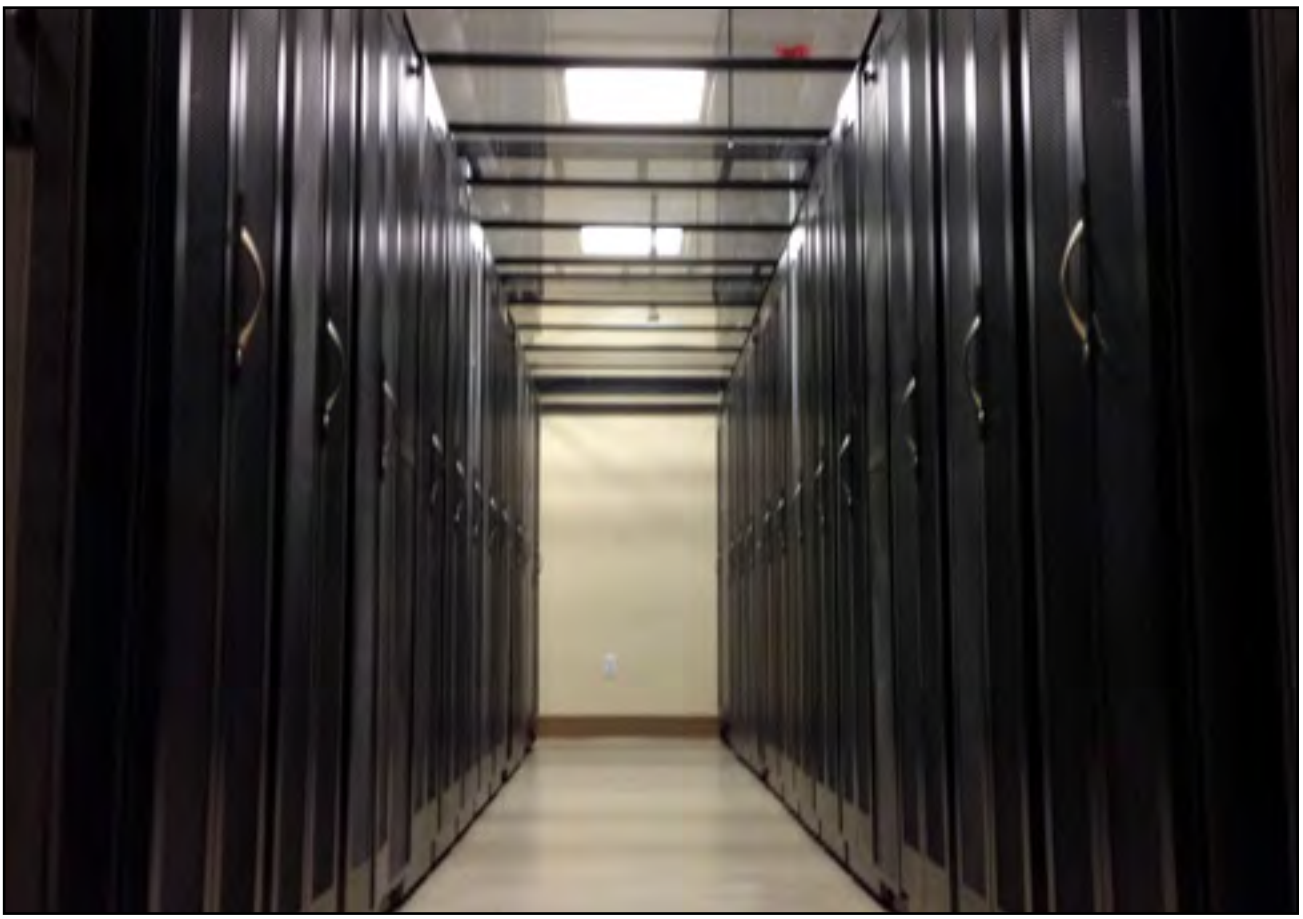
New Data Center | Ewa Beach, HI

Business Partner IBM

Data Specialties Inc., in conjunction with IBM, constructed a new data center for Queens Medical Center. The fast paced project included a 2N UPS system with the data center configured with a hot aisle containment system utilizing In-Row Coolers working in team mode to supply cooling to the cabinets. Troughs were attached to the tops of the cabinets to provide a pathway for the power and cooling requirements to the cabinets.

DSI/IBM services included:

- SITE ASSESSMENT
- STATEMENT OF REQUIREMENTS
- SCHEMATIC DESIGN
- ROUGH-ORDER-OF-MAGNITUDE PRICING
- COMPLETE DESIGN AND BUILD
- COMMISSIONING



Experience

First Midwest Bank

Data Center Renovation | Joliet, IL

Business Partner IBM

The data center at First Midwest Bank had grown to full capacity and was in need of renovation to allow for future growth and additional capacity. The project goals were to increase the UPS capacity and to modernize the cooling infrastructure. Additionally, new racks and network wiring were requested by the client.

The increase in UPS Capacity was accomplished by relocating an existing underutilized UPS into a room adjacent to the data center and establishing a new distribution system within the data center. Three new direct expansion in-row cooling units were installed to support the IT load.

Once the relocated UPS, new cooling, and network wiring were brought online the relocation of the IT equipment into new rack was scheduled. A systematic migration from the old infrastructure to the new infrastructure was completed over the course of three weekends and the old UPS and electrical distribution system were then removed. The entire project was completed on time, on budget, and without any unplanned outages for the client.

First Midwest Bank

Experience

Recology

Design, Build, and Move New Data Center | San Francisco, CA

Data Specialties Inc., in conjunction with IBM, implemented an energy-efficient, scalable and resilient data center and relocated equipment from an existing location in just over four months.

Recology's new data center includes 1,00 feet of raised floor – nearly 3.5 times the previous data center's physical size – to accommodate business growth for the next 10 years. Additional power and cooling equipment will be modular, so purchases can be made when business expands in the future, deferring capital expenditures. In addition, backup systems are designed to increase the center's availability and to reduce the impact of power outages.

The center relies on an Eaton Powerware uninterruptible power supply (UPS) system and two air conditioning units, for redundancy, supporting the center's current cooling capacity requirements.

The floor layout was designed for hot-aisle and cool-aisle capabilities. To help insure availability in the event of a brownout or power failure, the data center is also equipped with a generator that has an automatic transfer switch.

DSI/IBM services included:

- **IBM SITE AND FACILITIES SERVICES – IT FACILITIES CONSOLIDATION AND RELOCATION SERVICES**
- **IBM SITE AND FACILITIES SERVICES – IT FACILITIES DATA CENTER DESIGN**

Experience

IBM Crisis Response Team

Data Center Recovery Services | Multiple Locations

In the aftermath of a recent Earthquake in 1994, IBM formed a crisis response team to help its Los Angeles-area clients recover and resume operations. As part of that team, Data Specialties Inc. helped Holy Cross Medical Center construct a new 1,500-square-foot raised floor and data center in seven days to replace the one that was destroyed in the earthquake. The team also constructed a 1,500-square-foot data center for Pharmavite, in Oxnard, CA. The company's existing data had been structurally damaged in the quake and red-tagged by the City of Los Angeles.

IBM's Business Recovery Services (BRS) center in Santa Monica, CA, also was structurally damaged in the earthquake event. IBM used their main facility in Boulder, CO, to help their clients recover from the disaster. Afterward, DSI was part of the team that constructed IBM's new BRS center in Costa Mesa, CA. This project consisted of a 15,000-square-foot data center and customer workrooms. It was completed on a fast-track basis – including design and permits, it was finished in eight weeks.

Once the immediate needs were met, IBM launched a national crisis response team that would be on call 24/7 to assist clients with disasters in their data centers or other corporate facilities. The disasters ranged from fires, floods, terrorist activities, or natural disasters such as earthquakes and hurricanes.

Services DSI provided following the earthquake and in crisis response projects afterward included:

- BUSINESS RECOVERY SERVICES
- CONSULTING SERVICES
- SITE ASSESSMENT
- DESIGN SERVICES
- ELECTRICAL INSTALLATION
- COMMUNICATIONS INFRASTRUCTURE
- CONSTRUCTION SERVICES
- MECHANICAL SYSTEMS
- FIRE PROTECTION SYSTEMS


Carrier

Experience

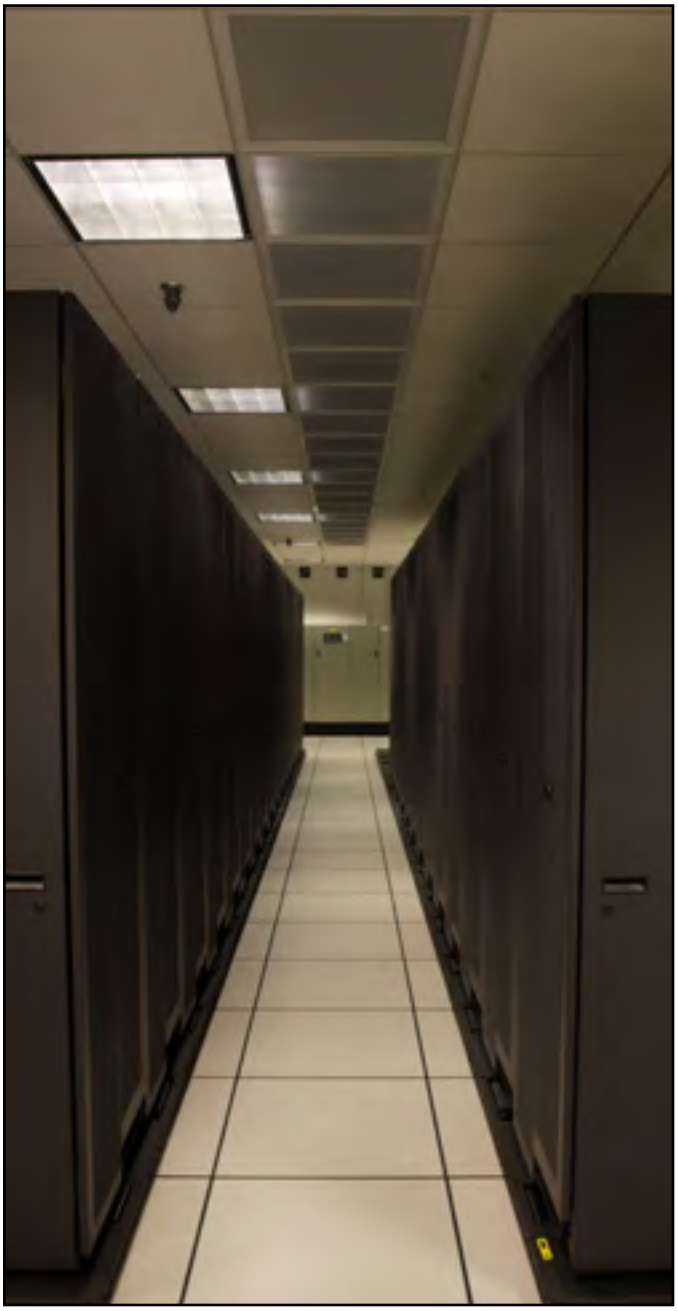
IBM

Data Center Services |
Multiple Locations

Data Specialties Inc. has been working with IBM since 1993 as a business partner and subcontractor constructing data centers throughout the western United States. Typical projects include a complete design and build of a client's data center including relocation of critical IT servers and network equipment. IBM and its global services division is one of the largest builders of data centers in the world.

The following table lists IBM clients to whom DSI has provided services, such as:

- CONSULTING SERVICES
- SITE ASSESSMENT
- DESIGN SERVICES
- ELECTRICAL INSTALLATION
- COMMUNICATIONS INFRASTRUCTURE
- CONSTRUCTION SERVICES
- MECHANICAL SYSTEMS
- FIRE PROTECTION SYSTEMS
- COMMISSIONING
- PREVENTATIVE MAINTENANCE



Select DSI Data Center-Related Projects for IBM

Name	Location	Description
Data Center Assessments and Evaluations		
Anadarko Petroleum Corporation	The Woodlands, TX	Data center electrical infrastructure evaluation
Cedars Sinai Medical Center	El Segundo, CA	Evaluation of existing data center and proposed co-location facility
Central Arizona Project	Phoenix, AZ	Data center electrical system evaluation
City of Beverly Hills	Beverly Hills, CA	Developed electrical system evaluation and recommendations
Clark County Sanitation	Las Vegas, NV	Data center assessment and recommendations
Columbia Sportswear	Portland, OR	Data center assessment and recommendations
Con-Way West	Portland, OR	Data center assessment and recommendations
County of Santa Clara	Santa Clara, CA	UPS system evaluation and recommendations
Danaher	Various	Physical assessment at three sites
Electronic Evidence Discovery	Kirkland, WA	Data center physical assessment
Guitar Center	Westlake Village, CA	Developed floor loading and structural analysis
Guitar Center	Phoenix, AZ	Developed evaluation of existing data center facility
Longs Drug Stores	Walnut Creek, CA	Developed Power system evaluation
Nevada Power Company	Las Vegas, NV	Developed data center assessment report
Nintendo	Redmond and North Bend, WA	Developed physical assessment report
Pacific Stock Exchange	San Francisco, CA	Performed data center evaluation and recommendations
Salem Hospital	Salem, OR	Developed data center assessment report
Sierra Pacific Power	Reno, NV	Developed data center assessment report
Sierra Vista Hospital	Sierra Vista, AZ	Developed data center assessment report
Standard Insurance	Portland, OR	Data center assessment and report
Toyota Motor Sales	Torrance, CA	Data center assessment and report

Experience

Select DSI Data Center-Related Projects for IBM

Name	Location	Description
Data Center Statement of Requirements		
EdFund	Sacramento, CA	Developed statement of requirements
El Paso Corporation	Houston, TX	Developed statement of requirements
Impac Mortgage	Irvine, CA	Developed statement of requirements
Las Vegas Review Journal	Las Vegas, NV	Data center statement of requirements
Maui High Performance Computing Center	Maui, HI	Developed statement of requirements
Methodist Hospital	Houston, TX	Developed statement of requirements for two sites
Stater Brothers Markets	San Bernardino, CA	Developed statement of requirements
Sybron Dental	Orange, CA	Data center statement of requirements
University of California – Santa Barbara	Santa Barbara, CA	Data center statement of requirements
University of California – San Diego	San Diego, CA	Data center statement of requirements
Varian Medical	Palo Alto, CA	Developed statement of requirements
Worker's Compensation Fund	Salt Lake City, UT	Developed data center statement of requirements
Washahoe Health Systems	Reno, NV	Developed site assessment and requirements
Electrical Services		
24 Hour Fitness	Carlsbad, CA	Data center electrical systems and remodel work
Alta Bates	Berkeley, CA	Electrical system for new data center
Barclay's	Sacramento, CA	New electrical system for data center
Boole and Babbage	San Jose, CA	New data center electrical system
California State Automobile Association	Walnut Creek, CA	Installation of new emergency generator to support call center
California State University – Northridge	Northridge, CA	New data center electrical installation and equipment relocation
California State University – San Bernardino	San Bernardino, CA	Data center electrical remodel work
Charlotte Russe	San Diego, CA	Installation of new UPS system
City of Beverly Hills	Beverly Hills, CA	Furnished and installed power cables

Select DSI Data Center-Related Projects for IBM

Name	Location	Description
Electrical Services		
City of Ridgecrest	Ridgecrest, CA	Installation of new UPS system
Clark County	Las Vegas, NV	Electrical engineering services
Clark County	Las Vegas, NV	Electrical contractor services, RFQ development
Clorox	Pleasanton, CA	Installation of new UPS system
COSTCO Wholesale	Issiquah, WA	Performed electrical design services for a new data center
County of Riverside	Riverside, CA	Installation of new UPS system
County of Santa Clara	Santa Clara, CA	Installation of new UPS system
Deutsch Industries	Hemet, CA	Installation of new UPS system
Dixieland Lumber	San Diego, CA	Installation of new UPS system
Doubletree Hotel	Phoenix, AZ	Installation of new UPS system
Hanjin Shipping	San Pedro, CA	Installation of new UPS system
Hunt Wesson	Fullerton, CA	Installation of new UPS system
IT Group	Irvine, CA	Installation of electrical system for new data center
Kendall Jackson	Santa Rosa, CA	Designed and built electrical system for new IBM data center project
Kinkos	Oxnard, CA	Installation of electrical wiring for new data center
Longs Drug Stores	Walnut Creek, CA	Various data center upgrades and remodels
Longs Drug Stores	Antioch, CA	Installation of emergency generators, UPS systems, and cabling systems for new office facility
Longs Drug Stores	Sacramento, CA	Installation of new emergency generator, UPS system, and cabling infrastructure for distribution center.
Los Angeles Metropolitan Transit Authority	Los Angeles, CA	Installation of new data center electrical system

Experience

Select DSI Data Center-Related Projects for IBM

Name	Location	Description
Electrical Services		
LPL Financial	San Diego, CA	Network cabinets and power cables
Merle Norman Cosmetics	Los Angeles, CA	Installation of new UPS system
Nestle	Phoenix, AZ	Installation of electrical systems and cable trays
OOCL	San Jose, CA	Expansion of existing data center
Primadonna Hotels	Primm, NV	Installation of UPS system
Reliance Steel	Los Angeles, CA	Installation of emergency generator
Siemens Rolm	Santa Clara, CA	Installation of emergency generator
Seminis Seeds	Oxnard, CA	Installation of new data center electrical system
Tuttle Click	Irvine, CA	Installation of UPS system
Varian Medical	Palo Alto, CA	Electrical infrastructure installation for a new 3,500 square foot data center including campus fiber network
Williams Sonoma	San Francisco, CA	Data center electrical work and consulting services
Westec Security	Irvine, CA	Electrical services
Voice and Data Cabling Services		
Fashion Institute of Design and Merchandising	Los Angeles, San Diego, San Francisco and Irvine, CA	Voice and data cabling systems
Hills Pet Products	Commerce, CA	Installation of new cabling system
IBM Corporation	Boulder, CO	Voice and data cabling for two data centers–total 86,000 square feet—after water damage
Kaiser Permanente	Corona, CA	Installation of new cable tray system for fiber cabling
Santa Ana Unified School District	Santa Ana, CA	Voice and data cabling to all school locations in the District
Trinity Broadcasting	Tustin, CA	Voice and data cabling system

Select DSI Data Center-Related Projects for IBM

Name	Location	Description
Data Center Design/Build		
Catholic Health Initiatives	Richardson, TX	Design/Build, 10,000 square foot data center
City of Hope	City of Hope, CA	Design/Build, 20,000 square foot data center
Columbia Sportswear	Portland, OR	650 square feet data center
CSAA	Arizona	5,000 square feet data center
Guitar Center	Phoenix, AZ	5,500 square foot corporate data center
Guitar Center	Indianapolis, IN	750,000 square foot distribution center
Guitar Center	Westlake Village, CA	2,500 square foot data center
Hoag Hospital	Newport Beach, CA	New fiber optic campus communications infrastructure for 1 million square foot complex
Jacuzzi Brands	Chino, CA	650 square foot data center
Las Vegas Review Journal	Las Vegas, NV	2,200 square foot data center
PeaceHealth	Springfield, OR	Design/Build, 5,000 square foot data center
QAD, Inc. – Project #1 and #2	Santa Barbara, CA	Both 5,000 square foot
Recology (formerly Norcal Waste)	Sacramento, CA	Design/Build, 2,000 square foot data center
Republic Indemnity	San Diego, CA	300 square foot disaster recovery site
Swedish Health Systems	Seattle, WA	7,500 square foot data center
Tucson Electric Power	Tucson, AZ	2,500 square foot data center
HMSA	Honolulu, HI	3,400 square foot data center, Installed (2) 275 kVA UPS's, (6) 100 kVA PDUs, (2) Generators, Parelleling switchgear, load bank, platforms for UPS, Utility upgrade, 2N mechanical soltuion and installed 5500 gallon above ground fuel tank
CliniTech	Everett, WA	1,800 square foot data center, a storage/staging room, generator and mechanical yard, 225kVA UPS, (2) 300kVA PDUsand (3) 22 ton CRAH units, utility upgrade, Polargy hot aisle, FM200 gaseous fire suppression system, 18" access raised floor

Experience

Select DSI Data Center-Related Projects for IBM

Name	Location	Description
Crisis Response Projects		
IBM Corporation	Boulder, CO	Assisted IBM with the restoration of two 35,000 square foot data centers damaged by water caused by hail storms
IBM Corporation	Costa Mesa, CA	Assisted IBM with the construction of an 8,000 square foot disaster recovery center damaged by the Northridge earthquake.
Holy Cross Medical Center	Northridge, CA	Assisted IBM with the emergency construction of a new data center for Holy Cross Medical Center damaged during earthquake. Completed in 3 days.
Pennsylvania Department of Transportation (PEN-DOT)	Mechanicsburg, PA	Assisted IBM with emergency construction of a new data center. Project completed in 13 days.
Pennsylvania Department of Transportation (PEN-DOT)	Harrisburg, PA	Assisted IBM with a new cabling infrastructure for approx. 750,000 sq. ft. of new office space for Pen-Dot. Project completed in approx. 1 year.
Haggar Clothing Company	Dallas, TX	Assisted IBM with emergency restoration of a data center facility damaged by fire

Clients

Clients

Data Specialties Inc. is a highly qualified and dedicated data center design/build firm. Licensed in multiple states, we provide our clients with turnkey data center services and solutions for new, relocation, consolidation and upgrade projects. Here is a list of our past and current clients – from across all industry sectors and throughout the western United States.

ADP
Applied Medical
ABC Studios
APC
20th Century Insurance
Advanced Bionics
Aether Systems
Airtouch Cellular
Amway
AT&T, Daly City
AT&T, Hayward
AT&T, Sacramento
AT&T, San Francisco
Behr Paints
Boeing
The Bick Group
Bakersfield College
BCBG Max Azria
Bergen Brunswig
Big Canyon Country Club
Cox Communications
City of Hope
Cnet Training
Cal State Long Beach
Cal State Los Angeles
Calif. Dept. of Transportation
Capital Group
CTDI

Caritor

Castle Access

CDB Infotec

Cedars Sinai Medical Center

Check Free Investment Services

China Trust

City of Beverly Hills

City of Santa Monica

City of Huntington Beach

Columbia Sportswear

County of Orange

Data Base Marketing Group

Doubletree Hotels

Downey Savings

Desert Diamond Casino's

Dunn Edwards Paints

Dreamworks

Ed Fund

Eisenhower Hospital

El Pollo Loco

Electronic Evidence Discovery

F.H.P. Denver

FIDM – Los Angeles

FIDM – San Francisco

Forever 21

Fleetwood Enterprises

Fountain Valley Community Hospital

Framestore (UK)

Gambrio Health Care

Guitar Center: Indianapolis

Guitar Center: Westlake Village

Guitar Center: Phoenix

Haggar Apparel / Dallas

Hamilton Fixture

Harrison Medical

HP

Hanna Barbera

Hansen Building Materials

Healthcare Partners

HMSA (IBM) Hawaii

Hoag Hospital

Home Savings of America

Clients

Hughes Aircraft

Hunt Wesson/Beatrice Foods

Insight

IBM Internap

J.R. Reynolds Company

Jacuzzi Brands

John Muir Hospital

Kaiser Permanente

Kent Landsberg

Kia Motors

Kinko's

K-Mart Fasteners

KNBC

Korn Ferry International

L.A. Community College District

L.A. Unified School District

La Costa Hotel and Spa

Lawrence Livermore Laboratories

Level 3 Communications

Lindora Comprehensive Weight Control

Long Beach Unified School District

Longs Drugs

Longs Drugs – Hawaii

Longs Drugs – Las Vegas

Los Angeles Country Club

Loyola Marymount University

LPL Financial

Marriott Hotels

Mazda Motors

McDonnell Douglas Financial

McGaw Labs

McGrath Rentcorp

Megasoft

Midland State Bank

Merle Norman Cosmetics

Met Life Investors

Methodist Hospital

Mitsubishi Electronics

Mercury Insurance

Mitsubishi Motor Credit

National Semiconductor

Naval Air Station, 32nd St., San Diego

Naval Air Station, China Lake

Naval Air Station, Fallon

Naval Air Station, Lemoore

Naval Air Station, Point Mugu

Naval Air Station, Port Hueneme

Navajo Housing Authority

Neutrogena

Nevada Power

New York Life

Nissan Motors

Occidental College

Orange County Register Newspaper

Pacific Bell: Anaheim

Pacific Bell: Pleasant Hills

Pacific Bell: San Ramon

Pacific Bell: Alhambra

PC Mall

Pacific Hospital of Long Beach

Pacific Sunwear of So. Calif

Pacificare

Paramount Pictures

Pepco Energy

Patelco Credit Union

Penn. Dept. of Transportation

Pic 'N Save

Polargy

Pierpoint Technologies

PMI / Delta Dental

Pro Motors

Providence Health

QAD

Rancho Santa Fe Technologies

Riverside County,
Office of Education

Robert Half International

Robinson May

Safety Supply

Salem Hospital

San Luis Obispo County

Santa Clara County

Sharp Healthcare

Sanwa Bank

Securitas USA

Security First Group

Shearson Lehman

Sierra Pacific Power

Screen Actor's Guild

Sierra Vista

So. California Edison

Stater Bros. Markets

Sempra Energy

Swinerton Builders

Swedish Health Services

Sybron Dental

Taco Bell

Thomas Brothers

T-Mobile

Toshiba America
Medical Systems

Toyota Motor Sales

Teradata

Treadstone Corporation

Trinity Broadcasting

Tucson Electric Power

U.C. Berkeley

U.C.L.A.

U.C.S.D.

Clients

Unico American

Unisys

US Army (Fort Bliss)

Universal Studios

University Medical Center

Varian Medical Systems

Venyu Solutions

Verizon Wireless

Walt Disney Imagineering

Walt Disney Studios

Washoe Health Systems

Wescom Credit Union

Western Digital

Wheeler Army Base

White Memorial
Medical Center

Whittier College

Williams Sonoma

Workers Compensation Fund

World Vision

XO Communications

Yavapai Medical Center

For details on some of the projects we have completed for our clients, please see the "Experience" section of this statement of qualifications and visit our web site at www.dataspecialtiesinc.com.

We also will gladly provide reference contact information to you upon request.

Personnel

Personnel

Data Specialties Inc. employs some of the leading data center specialists working in the industry today. Our highly trained personnel work together to provide turnkey solutions to our customers. The team is supported by a full cohort of technical and administrative personnel to ensure that our projects are executed efficiently and to our clients' full satisfaction.

We tailor our project teams to meet our client's specific project needs. Each team is assembled and managed by a designated project manager, who serves as the key client contact and closely manages the day-to-day activities and the budget and time parameters for his projects. Descriptions of our project leaders' areas of responsibility and expertise follow.

Phil Rafferty, CDCDP

Founder / Chief Executive Officer

Phil Rafferty is the President, Chief Executive Officer and co-founder of Data Specialties Inc. He is responsible for DSI's overall performance on data center and other high technology facility design and build projects. In addition, he is the key administrator of the firm's projects as an IBM Business Partner, and he leads the company's efforts to expand its geographic presence.

Phil, who specializes in the design, construction and maintenance of mission critical sites, has completed hundreds of projects ranging from simple feasibility studies to multi-million dollar design/build data center projects. Over the course of his career, Phil has overseen projects across the United States for large and mid-sized companies from a broad spectrum of industries.

PROJECT EXPERIENCE

- **LAS VEGAS REVIEW JOURNAL**
  Las Vegas, NV
- **TUCSON ELECTRIC POWER**
  Tucson, AZ
- **SWEDISH HEALTH SYSTEMS**
  Seattle, WA
- **PENNSYLVANIA DEPARTMENT OF TRANSPORTATION**
  Mechanicsburg and Harrisburg, PA
- **IBM**
  Multiple Locations
- **COLUMBIA SPORTSWEAR**
  Portland, OR
- **GUITAR CENTER**
  Phoenix, AZ
- **PEACE HEALTH**
  Springfield, OR
- **ADP**
  La Palma, CA
- **CITY OF HOPE**
  Irwindale, CA
- **CATHOLIC HEALTH INITIATIVES**
  Richardson, TX
- **JACUZZI BRANDS**
  Chino, CA
- **QAD, INC.**
  Santa Barbara, CA
- **HMSA**
  Hawaii
- **KINETIC CONCEPTS CORPORATION**
  San Antonio, TX
- **CLINITECH**
  Washington

Personnel

Ric Maxson, CDCDP

Founder / Chief Financial Officer

Ric Maxson is Vice President, Chief Financial Officer and co-founder of Data Specialties Inc. At DSI, Ric manages the company's day-to-day and technical operations. He has been instrumental in nearly every major project the firm has completed. In the process, he has established a reputation in the industry for his close attention to detail. Working closely with our technical staff to ensure that projects are kept on time and on budget, Ric also is the primary contact for our large, repeat customers on data centers upwards into the multi-million dollar range.

Ric, whose expertise is strongest in electrical systems, has worked extensively on both new facilities and data center expansions to address our clients' reliability, growth and planning objectives. Ric's projects primarily have been in the Western United States and have involved companies in a wide range of industries including entertainment, retail, utilities, data storage and more.

PROJECT EXPERIENCE

- **PARAMOUNT PICTURES**
  Data center remodel
  Los Angeles, CA
- **NAVAL AIR STATION**
  Server farm installations
  Multiple locations
- **BEHR PROCESSING CORPORATION**
  Data center design and build
  Santa Ana, CA
- **ORBITAL SCIENCES**
  Chandler, AZ
- **FORT BLISS**
  El Paso, TX
- **DREAMWORKS ANIMATION SKG**
  Glendale, CA
- **PACIFIC SUNWEAR**
  Anaheim, CA
- **HOAG HOSPITAL**
  Newport Beach, CA
- **DUNN EDWARDS PAINTS**
  Phoenix, AZ
- **MERCURY INSURANCE**
  Brea, CA
- **DELTA DENTAL PLAN**
  Data center design and expansion
  Cerritos, CA
- **PACIFIC BELL**
  Multiple locations
- **HITACHI DATA CENTER**
  San Jose, CA
- **PHYSICIAN HOSPITAL**
  Tucson, AZ

Steve Borley, CDCDP

Managing Director

Seven years with DSI, 32 years in the industry

Steve Borley is Managing Director for Data Specialties Inc. In that role, he works closely with current and potential clients to ensure that our expertise fully addresses their immediate and long-term objectives. His ability to tailor the appropriate functions and expertise from our internal resources to exceed our clients' expectations makes him a key player in building enduring relationships, both with clients and with our partners and suppliers. Steve also is responsible for providing ongoing training and educational offerings to our staff and works with our trusted partners and vendors to ensure that DSI personnel are current on new technologies, materials and techniques in the data center arena.

Steve's earlier experience included the opening of five new start-up operations in two countries, and he has worked extensively in both Europe and the United States. He is personally interested in the emergence of "green" technologies and strategies – industry-changing developments that he is incorporating into DSI's portfolio of value-added service offerings.

PROJECT EXPERIENCE

- **FOOTLOCKER**
  United States,
  12 European Countries
- **BARCLAYS BANK**
  London, U.K.
- **KPMG**
  14 U.K. Locations
- **NEXT RETAIL**
  Leeds, U.K.
- **VERIZON**
  12 Locations
- **HITACHI DATA CENTER**
  San Jose, CA
- **INSIGHT**
  Arizona
- **GRAEBEL**
  Denver, CO
- **HP**
  Multiple Projects Nationwide
- **CRICKET COMMUNICATIONS**
  Denver, CO
- **DESERT DIAMOND**
  Tucson, AZ
- **APC**
  Multiple Projects


“We Build Data Centers”

Personnel

Brent Ciulei, CDCDP

Project Manager

27 years industry experience

As one of Data Specialties Inc.'s key Project Managers, Brent Ciulei oversees our new and expansion data center projects from design through close-out documentation. In addition to coordinating the work of multiple disciplines and trade contractors, Brent oversees quality assurance/quality control (QA/QC), tracks budgets and schedules in real time, and manages construction document preparation, job site inspections, local permitting and technical reviews to ensure that projects are completed on budget and on time.

Brent's prior experience included tenures with an Orange County, California, data center fire suppression and electrical consulting firm and a Los Angeles data center electrical contractor. Throughout his career, Brent has focused on clear client communications to best understand and meet each data center's performance requirements.

PROJECT EXPERIENCE

- **ACT! LITIGATION**
  Valencia, CA
- **CHEVRON PRODUCTS COMPANY**
  El Segundo, CA
- **CRAIG'S LIST**
  San Francisco, CA
- **BRITISH TELECOM***
  10,000 sq ft data center buildout
  San Francisco, CA
- **BRITISH TELECOM***
  13,000 sq ft data center buildout
  Chicago, IL
- **SHARP HEALTHCARE**
  San Diego, CA
- **CITY OF TORRANCE POLICE DEPARTMENT**
  Torrance, CA
- **SWIFTCOM***
  13,000 sq ft data center buildout
  Riverside, CA
- **T-MOBILE**
  Torrance, CA
- **WACOVIA**
  Irvine, CA
- **INTERNAP**
  El Segundo, CA
- **COX COMMUNICATIONS***
  Data center expansion
  San Diego, CA
- **ANDERSON AIR FORCE BASE***
  UPS installation project
  Guam
- **SONY PICTURES***
  UPS expansion project
  Burbank, CA

*Prior to joining DSI.

Steven M. Clark, CDCDP

Project Manager

29 years industry experience

Steven M. Clark is Data Specialties Inc.'s leading Project Manager for both stand-alone infrastructure cabling projects and the cabling infrastructure components of our data center design/build projects. As such, Steve oversees critical tasks from sales through commissioning and maintenance. His areas of expertise cover voice, data, fiber optics and CATV.

Prior to joining DSI, Steve served as project manager for Kaiser Permanente's National Health Connect System. His more than 29 years of experience in the industry have given him a deeply rooted appreciation for the importance of clients' data centers and cabling infrastructure, and he has built a reputation for completing projects to the highest standards while minimizing disruptions to clients' operations.

PROJECT EXPERIENCE

- **CALIFORNIA STATE AUTOMOBILE ASSOCIATION (CSAA)**
  Data center expansion
  Irvine, CA
- **DELTA DENTAL PLANS ASSOCIATION**
  Data center design and expansion
  Cerritos, CA
- **SANTA ANA UNIFIED SCHOOL DISTRICT**
  Communications infrastructure
  Santa Ana, CA
- **CALIFORNIA STATE AUTOMOBILE ASSOCIATION**
  Irvine, CA
- **FASHION INSTITUTE OF DESIGN AND MERCHANDISING**
  Communications infrastructure
  Multiple Locations in California
- **STATER BROS. MARKETS**
  Disaster recovery center
  San Bernardino, CA
- **LONGS DRUG STORES**
  Electrical systems for multiple facilities
  Walnut Creek, CA
- **RED MEDIA**
  Hollywood, CA
- **BEHR DATA**
  Southern California
- **SWEDISH HEALTH SERVICES**
  Data center design and build
  Seattle, WA
- **ACTIVE RIDE SHOP**
  Communications and electrical systems
  Mira Loma, CA
- **SPECTRUM PHARMACEUTICALS**
  Data center and communications cabling design and build
  Irvine, CA
- **CHINA TELECOM**
  Los Angeles, CA
- **TOSHIBA**
  Northern California

Personnel

Jim Dunn, CDCDP

Project Manager

23 years industry experience

As Data Specialties Inc.'s lead Project Manager, Jim Dunn oversees some of our largest and most complex design and installation projects. Working on new and expanding data centers and data storage facilities, Jim specializes in evaluating, planning, design and construction of complete data centers. He selects and manages his project teams to ensure that assignments are completed on time and on budget – and to the client's full satisfaction.

Jim, whose earlier experience included serving as an IT project manager for a Fortune 1000 company, has worked with clients throughout Southern California and across numerous industries.

PROJECT EXPERIENCE

- **CALIFORNIA STATE AUTOMOBILE ASSOCIATION (CSAA)**
  Irvine, CA
- **EL POLLO LOCO**
  Costa Mesa, CA
- **BEHR PROCESSING CORPORATION**
  Santa Ana, CA
- **ST. JUDE MEDICAL CARDIAC RHYTHM MANAGEMENT**
  Sylmar, CA
- **XO COMMUNICATIONS**
  Las Vegas, NV
- **PACIFIC HOSPITAL OF LONG BEACH**
  Long Beach, CA
- **FEDERAL DEPOSIT INSURANCE CORP. (FDIC)**
  Irvine, CA
- **SECURITAS SECURITY SERVICES USA, INC.**
  Westlake Village, CA
- **SPECTRUM PHARMACEUTICALS**
  Irvine, CA
- **CITY OF MURRIETA**
  Murrieta, CA
- **PEOPLE SUPPORT**
  Los Angeles, CA
- **ORANGE COUNTY FIRE AUTHORITY**
  Irvine, CA
- **FDIC**
  Irvine, CA
- **FOREVER 21**
  Los Angeles, CA
- **CITY OF SANTA MONICA**
  Santa Monica, CA
- **FRAMESTONE (UK)**
  Culver City, CA

Jim Beza

National Sales Executive

36 years of industry experience

Jim Beza is Data Specialties Inc.'s National Sales Executive across the United States. Jim works with current and potential clients in developing solutions which support their specific data center facility needs. Jim's experience in deploying information technology along with his knowledge of data center facility design provides our customers with potential insights and alternatives to meet both short-term and long-term requirements.

Prior to joining DSI, Jim was a Data Center Facilities Principal for IBM Corporation working directly with clients in defining and implementing data center projects over the last 23 years. Jim is passionate about exceeding customer expectations and has a reputation for achieving that goal with all his clients. Jim was a recipient of the Lou Gerstner Award for Client Excellence, one of the companies' highest honors, demonstrating his ability to exceed customer objectives.

PROJECT EXPERIENCE

- **SEMINIS VEETABLE SEEDS**
  Oxnard, CA
- **KINKO'S**
  Oxnard, CA
- **LONGS DRUGS**
  Walnut Creek, CA
- **HOAG HOSPITAL**
  Newport Beach, CA
- **TUCSON ELECTRIC POWER**
  Tucson, AZ
- **ELECTRONIC EVIDENCE DISCOVERY**
  Kirkland, WA
- **RECOLOGY**
  Sacramento, CA
- **SWEDISH HEALTH SERVICES**
  Seattle, WA
- **CHI**
  Richardson, TX
- **PEACEHEALTH**
  Springfield, OR
- **CLINITECH**
  Everett, WA

Personnel

Michael Shipman

Director, New Business

34 years of business and information technology experience

Mike Shipman, Director, New Business with Data Specialties Inc., works closely with DSI customers to help them balance their business, growth and technical needs against budgetary constraints while at the same time guiding them toward an efficient, resilient and fully optimized data center strategy. He is skilled in helping executives realize and balance short and long term implications related to their data center decision process.

Prior to joining DSI, Mike was a Global Services Executive with the IBM Corporation working directly with key clients helping to guide their data center strategy, budget development, data center planning, design, and construction. At IBM Global Services, Mike had responsibly for Data Center Services, Data Center Relocation Services, Cloud Services, Security Services, Business Continuity & Resiliency Services and Network/Integrated Communications Services.

Mike achieved the IBM Executive Consulting Institute certification in Palisades, NY, IBM Project Management Certification in Boulder, CO, and is also is a recipient of the IBM Lou Gerstner, New Blue, Selfless Team Leadership Award.

PROJECT EXPERIENCE

- **SWEDISH HEALTH SERVICES**
  Seattle, WA
- **COLUMBIA SPORTSWEAR**
  Portland, OR
- **ELECTRONIC EVIDENCE DISCOVERY**
  Kirkland, WA
- **KOOTENAI HEALTH**
  Coeur d'Alene, ID
- **PEACEHEALTH**
  Springfield, OR
- **THE EVERETT CLINIC (CLINITECH)**
  Everett, WA
- **STERLING BANK**
  Spokane, WA

Scott Koons

Construction Project Manager

18 years industry experience

Scott Koons is Data Specialties Inc.'s lead Construction Project Manager on data center design/build and expansion projects. As the key contact for his clients, Scott brings over 18 years of construction management experience, more than half of which has been devoted entirely to data center facilities. His in-depth experience in the sector enables him to bridge the needs of the clients, designers and local permitting and use requirements to deliver new or expanded facilities that meet all stakeholders' parameters.

Scott, whose responsibilities include construction document preparation, job site inspection and technical reviews, has overseen projects throughout the Western (mainland) United States and in Hawaii.

PROJECT EXPERIENCE

- **CITY OF HOPE**
  Irwindale, CA
- **CHI**
  Richardson, TX
- **KOOTENAI MEDICAL CENTER**
  Coeur D'Alene, ID
- **LAS VEGAS REVIEW JOURNAL**
  Las Vegas, NV
- **SWEDISH HEALTH SERVICES**
  Seattle, WA
- **TUCSON ELECTRIC POWER**
  Tucson, AZ
- **NORCAL WASTE SYSTEMS, INC.**
  Sacramento, CA
- **ICU MEDICAL**
  San Clemente, CA
- **COLUMBIA SPORTSWEAR**
  Beaverton, OR
- **ABC STORES**
  Oahu, HI
- **KUAKINI HEALTH SERVICES**
  Oahu, HI
- **HMSA**
  Hawaii

Personnel

Vern Koops

Construction Project Manager

26 years industry experience

Vern Koops is Data Specialties Inc.'s primary Construction Project Manager on electrical systems and low-voltage cabling projects. In that capacity, he provides project management and general supervision of electricians and installers on tasks of all sizes and levels of complexity. He hires crews for specific projects and tracks all key components of the work from labor hours and expenses to equipment to permitting and commissioning.

Vern joined DSI in 1990 as an electrical and data cabling job foreman. He opened our Northern California office in 1996 and was the Northern California Branch Manager for 11 years. Currently, Vern serves as our on-site project manager for projects outside of California.

PROJECT EXPERIENCE

- **ROBERT HALF INTERNATIONAL**
  Pleasanton, CA
- **LONGS DRUG STORES**
  Walnut Creek, CA
- **AT&T**
  Multiple locations
- **KOOTENAI MEDICAL CENTER**
  Coeur d'Alene, ID
- **ELECTRONIC EVIDENCE DISCOVERY**
  Kirkland, WA
- **COLUMBIA SPORTSWEAR COMPANY**
  Portland, WA
- **CHI**
  Richardson, TX
- **LONGS DRUGS**
  Honolulu, HI
- **LONGS DRUGS**
  Las Vegas, NV
- **PEACE HEALTH**
  Springfiled, OR

Jim Pocock

Regional Director

28 years industry experience

Jim Pocock is a Regional Director of Data Specialties Inc.'s Northern California Office. In addition to overseeing our day-to-day operations there, he is the lead Project Manager on our projects in the region. He manages the design and build – as well as expansions, consolidations, changes and adds – of data centers and high technology facilities of all sizes from sales to facility commissioning.

A licensed electrical and general contractor in California, Jim also is the firm's Northern California safety officer. Under his direction, the company recently earned its "oil refinery" level safety rating.

PROJECT EXPERIENCE

- **NORCAL WASTE MANAGEMENT**
  Sacramento, CA
- **CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)**
  Sacramento, CA
- **FEDERAL EXPRESS***
  Large UPS system installation
  Sacramento, CA
- **LONGS DRUG STORES**
  Walnut Creek, CA
- **COMCAST***
  Sacramento, CA
  San Francisco, CA
- **AT&T BROADBAND***
  Sacramento, CA
- **HITACHI DATA CENTER**
  San Jose, CA
- **NORTHERN CALIFORNIA WASTE**
  Sacramento, CA
- **CALIFORNIA DEPARTMENT OF TECHNICAL SERVICES (DTS)**
  Sacramento, CA
- **STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**
  UPS Installation
  Sacramento, CA
- **QUEST**
  PDUs and Starline busing
  Sacramento, CA

*Prior to joining DSI.

Personnel

Nelson G. Luhrsen

New Business Development, Northern California

13 years industry experience

Nelson Luhrsen joined Data Specialties Inc. in 2008 and brings 13 years in both the electrical field and data center build-outs. Such opportunities have allowed Nelson to gain extensive knowledge and experience providing project management and consulting services in all aspects of design and installation. Nelson manages commercial construction projects, including the organization and management of sub contractors, crew, material, safety and job schedules. Throughout his career, Nelson has continually been recognized by both management and peers for his ability to perform tasks with precision, timeliness, and attention to detail.

PROJECT EXPERIENCE

- **RAGING WIRE**
  Natomas, CA
- **QUEST SYSTEMS**
  McClellan, CA
- **CU DIRECT**
  Rancho Cordova, CA
- **HITACHI**
  San Jose, CA
- **ALCATEL LUCENT**
  Mountain View, CA
- **TOSHIBA**
  Santa Clara, CA
- **FACEBOOK**
  Santa Clara, CA
- **CRAIGSLIST**
  San Francisco, CA
- **CAL TRANS**
  Sacramento, CA
- **CALIFORNIA DEPARTMENT OF TECHNOLOGIES**
  Rancho Cordova, CA
- **MARIN GENERAL HOSPITAL**
  Greenbrae, CA
- **MCGRATH**
  Livermore, CA
- **LONGS DRUG**
  Concord, CA
- **MERCURY INSURANCE**
  Folsom, CA
- **CALIFORNIA DEPARTMENT OF TECHNICAL SERVICES (DTS)**
  Sacramento, CA
- **JOHN MUIR HOSPITAL**
  Walnut Creek, CA
- **DEPARTMENT OF DEFENSE**
  Sacramento, CA

Steve Colbert

Project Manager, Northern California

10 years industry experience

Steve Colbert manages commercial construction projects, including the organization and management of subcontractors, crew, material, safety and ob schedules. With 10 years experience in both electrical field and data center build-outs, Steve brings extensive knowledge and providing project management and consulting services in all aspects of design and installation. Steve as continually been recognized by both management and peers for his ability to perform tasks with precision, timeliness and attention to detail.

PROJECT EXPERIENCE

- **RAGING WIRE**
  Natomas, CA
- **QUEST SYSTEMS**
  McClellan, CA
- **CU DIRECT**
  Rancho Cordova, CA
- **ALCATEL LUCENT**
  Mountain View, CA
- **CAL TRANS**
  Sacramento, CA
- **CALIF. DEPT OF TECHNICAL SERVICES (DTS)**
  Rancho Cordava, CA
- **MCGRATH RENT CORP.**
  Livermore, CA
- **MERCURY INSURANCE**
  Folsom, CA
- **NORCAL WASTE**
  Sacramento, CA
- **FEDERAL EXPRESS**
  Sacramento, CA
- **RECOLOGY**
  Sacramento, CA
- **DEPT. OF DEFENSE**
  Sacramento, CA

Personnel

Chris Bibeau

Regional Director

29 years industry experience

Chris Bibeau started in the Construction Industry in 1985 and has performed the various functions throughout his career prior to joining DSI; Field Electrician, Senior Project Manager for a Design Build Data Center General Contractor, Electrical C-10 and General B-1 Contractor State of California Construction Manager for Sempra Energy, provided Industry Expert Inspections and Reports for the State Of California, and President / Owner of BCM Consulting and Development, Inc.

Chris has participated in several large data center projects and co-generation plants throughout Arizona, Southern and Northern California. Chris takes pride in understanding the clients' needs and desires for all aspects of any project being discussed. Building successful project teams and exceeding client expectations has been a consistent model for all projects Chris has participated in.

PROJECT EXPERIENCE (DATA CENTER)

- **BROADCOM**
  San Jose, CA
- **EXODUS COMMUNICATIONS**
  Santa Clara, CA
- **CTDI**
  Phoenix/Los Angeles/Florida
- **DIGITAL REALITY**
  Los Angeles, CA
- **AT&T**
  Los Angeles, CA
- **COX COMMUNICATIONS**
  Phoenix, AZ
- **AAA**
  California/Arizona
- **SMART & FINAL**
  City of Commerce, CA
- **SOUTHERN CALIFORNIA GAS COMPANY**
  Los Angeles, CA
- **AMGEN**
  Los Angeles, CA
- **DESERT DIAMOND CASINOS**
  Arizona
- **NIDDK**
  Phoenix, AZ
- **VERIZON / COX**
  Arizona

Jeff McCartney

Western Regional Business Development Manager

22 years industry experience

Jeff McCartney is Data Specialties Inc.'s Business Development Manager for all of the Southwest Region. Jeff works with current and potential clients, manufacturers, engineers, and is responsible for developing strategic business relationships, managing partner alliances and spearheading strategic planning to generate new revenue opportunities.

Jeff's earlier experiences include Project Management, Design-Build capabilities, Network integration, Infrastructure and Telecommunication IP/VPN solutions and overall support options for all deliverables.

Jeff received his Bachelor of Science in Marketing from Southern Illinois University, Carbondale, IL. Primary concentration – Sales Management and Secondary Concentration – Promotion/Advertising.

PROJECT EXPERIENCE

- **PETSMART**
  National Deployment
- **AVNET**
  National Network Deployments
- **AVNET**
  New York, NY
- **GE**
  New Mexico
- **CATHOLIC HEALTH CARE WEST**
  Multiple Locations
- **BANFIELD PET HOSPITAL**
  National Deployments
- **KAYENTA HEALTH CARE HOSPITAL**
  Arizona
- **GUITAR CENTER**
  Phoenix, AZ
- **DUNN EDWARDS PAINTS**
  Phoenix, AZ
- **AAA**
  Phoenix, AZ
- **ORBITAL SCIENCES**
  Phoenix, AZ
- **HIGLEY UNIFIED SCHOOL DISTRICT**
  Higley, AZ

Personnel

Michael Balles

Technical Director, St. Louis, MO

29 years industry experience

Mike is the Technical Director for the St. Louis office, and has specialized in the planning and design of technical facilities for 29 years. He is comfortable with the strict regulations and requirements that often accompany these projects and has applied this expertise for a wide variety of data center customers. Mike's attention to detail and extensive knowledge of construction for technical facilities makes him a great asset to DSI's St. Louis office.

His experience includes the design and construction of data centers, network switching facilities, call centers, cable television headends, cell site, and numerous healthcare facilities. Mike's career includes work as lead designer and project manager for several design, engineering, and data-center design-build firms. Mike is a member of a number of construction and data center service organizations.

PROJECT EXPERIENCE

- **ALLINA HEALTH SYSTEM** Minneapolis, MN
- **ANTARES** Beachwood, OH
- **ARSALON** Kansas City, KS
- **AT&T / WIRELESS** Various
- **BUILD-A-BEAR WORKSHOP** St. Louis, MO
- **CH ROBINSON** Minneapolis, MN
- **COSENTRY** Kansas City, MO
- **EASTMAN CHEMICAL CO.** Kingsport, TN
- **EQUIFAX** Alpharetta, GA
- **FOREST CITY ENTERPRISES** Cleveland, OH
- **GOODYEAR TIRE AND RUBBER** Akron, OH
- **HARLAND CLARKE** Atlanta, GA
- **HARRAH'S** Memphis, TN
- **INDIANAPOLIS POWER & LIGHT** Indianapolis, IN
- **KIEWIT** Omaha, NE
- **MERITER HEALTH SERVICES** Madison, WI
- **NORTEL** Raleigh, NC
- **PROHEALTH CARE** Milwaukee, WI
- **PROVENA** Chicago, IL
- **SCOTTRADE** St. Louis, MO
- **SCRIPPS NETWORKS** Knoxville, TN
- **SMURFIT STONE** St. Louis, MO
- **TIMKEN** Canton, OH
- **TRINITY HEALTH** Novi, MI
- **YELLOW ROADWAY** Kansas City, KS
- **VENYU SOLUTIONS** Baton Rouge, LA

Kevin Mattison

Construction Director, St. Louis, MO

36 years industry experience

Kevin Mattison is the Construction Director for Data Specialties Inc.'s St. Louis office. For the past decade, Kevin has been managing construction of data center ground-up and renovation projects for mission critical facilities. Many of the projects occur in active data centers where attention to process and detail are essential.

Kevin has more than 31 years of hands on experience, rising through the positions of apprentice, journeyman, foreman, general foreman, superintendent and general superintendent. Having working field experience has provided him with a practical approach to constructability of complex infrastructure.

Kevin has been involved with successful estimating and project management for a range of projects and programs that scale from $100,000 to $20 million.

PROJECT EXPERIENCE (DATA CENTER)

- **ANTARES**
  Beechwood, OH
- **CHARTER COMMUNICATIONS**
  Various
- **FIRST BANK**
  St. Louis & Hermann, MO
- **GMAC INSURANCE**
  St. Louis, MO
- **HARRAH'S**
  St. Louis, MO
- **HORACE MANN**
  Springfield, IL
- **MASTERCARD**
  O'Fallon, MO
- **MONSANTO**
  St. Louis, MO
- **TALX**
  St. Louis, MO
- **EQUIFAX**
  Alpharetta, GA
- **NORTEL**
  Raliegh, NC
- **PROVENA**
  Chicago, IL
- **SMURFIT STONE**
  St. Louis, MO
- **STRATA SPACE**
  Louisville, KY
- **SUNGUARD**
  Aurora, CO
- **CH ROBINSON**
  Minneapolis, MN
- **EASTMAN CHEMICAL CO.**
  Kingsport, TN
- **BUILD-A-BEAR WORKSHOP**
  St. Louis, MO
- **FOREST CITY**
  Cleveland, OH
- **PARKER HANNIFIN**
  Cleveland, OH
- **TIMKEN**
  Canton, OH
- **VERIZON WIRELESS, INC.**
  St. Louis, MO
- **INVOLTA**
  Various
- **VENYU SOLUTIONS**
  Baton Rouge, LA

Personnel

Jim Forker

Project Manager

34 years industry experience

Thirty three years in the electrical construction trade prior to joining DSI in 2012. The past twenty five years have been project managing including scheduling and managing sub-contractors, crews, and material. Hold an electrical contracting license in California and Arizona. Have had an opportunity to participate in the construction of a variety of projects. These would include working with the utility companies to bring their service on site, big box stores, schools, hospitals, data centers, and backup generator systems.

PROJECT EXPERIENCE (DATA CENTER)

- **PRICE CLUB AND COSTCO WHOLESALE**
  Throughout Southern California and Arizona
- **LOWES**
  Scottsdale, AZ
  Cave Creek, AZ
  Sonora, CA
  Eugene, OR
- **HOAG HOSPITAL ICU/ MED SURGERY**
  Newport Beach, CA
- **EISENHOWER MEDICAL CENTER BIRTHING CENTER**
  Rancho Mirage, CA
- **SONY PICTURES**
  Culver City, CA
- **CAL STATE FULLERTON**
  Fullerton, CA
- **UNIVERSITY OF CALIFORNIA IRVINE**
  Irvine, CA
- **AMGEN**
  Thousand Oaks, CA
- **COURTYARD BY MARRIOTT**
  Buena Park, Santa Ana, Torrance, CA
- **MOBIL OIL**
  Torrance, CA
- **LA QUINTA INN**
  Irvine, CA
- **GAF ROOFING**
  Fontana, CA
- **DHL**
  Phoenix, AZ
- **ISUZU TECH CENTER**
  Cerritos, CA
- **CHAPMAN MEDICAL CENTER**
  Orange, CA
- **CAMP PENDLETON**
  Oceanside, CA


“We Build Data Centers”

Personnel

Sharon Tye

Southern California
Business Development

Sharon Tye is responsible for new business development in Southern California. She has been in the Mission Critical industry for over 20 years. Her background includes directing multi-million dollar sales growth in both a sales capacity, as well as a business management capacity, creating effective sales programs, developing accounts, and increasing organizational revenue within highly competitive markets. Sharon has been tasked with establishing professional relationships with customers, vendors and executives within the mission critical industry in order to develop new business throughout the nine counties in the Southern California region.

Her past work experience includes a long-term position as Vice President of Operations for CORE Support Systems, Inc., a premier data center equipment Manufacturer's Rep, as well as a position as Field Sales Representative for Liebert Corporation at their factory direct office in Pleasanton, California.

Jon McSweeny

Business Administrator

Jon McSweeny has been working in the design and construction of data centers for nearly 22 years. Jon also has an extensive background in cabling and network infrastructure as well. Along with his qualifications as a general contractor, Jon's primary focus is working with DSI customers and primary business partners in order to insure that all DSI installations meet the expectations of all those concerned. As a licensed attorney, Jon is able to insure that DSI, and all DSI customers, meet all city, state, and federal regulations with respect to the construction and operation of their facilities.

His background and experience as a field technician, a salesperson, and a project manager allows him to work with customers in all fields and to make certain that the precise concerns of all DSI customers and partners are addressed as efficiently and reliably as possible.

George Goodsell

IT Helpdesk & Marketing Support

George Goodsell has a background in both Marketing and Information Technology. His primary task with Data Specialties Inc. will be the support of all in-house computing and networking. And as DSI continues to grow, oversee an onsite IT help desk, a requirement for employee support and keeping on the forefront of technology. He will also be aiding DSI's Marketing Coordinator to help strengthen our brand and grow online-based sales.

Jessica Cavanaugh

Marketing Coordinator

Jessica Cavanaugh is the Marketing Coordinator for Data Specialties Inc., coming to us with over six years of IT marketing experience. Essentially, her role consists of building and maintaining the DSI brand as it relates to the execution and planning of various marketing campaigns throughout any given year. Tradeshow planning and execution, social media management, content writing and Internet marketing are her primary responsibilities.

She is a graduate of California State University, Fullerton where she obtained her Bachelor's Degree in Communications with an emphasis in Public Relations.

Personnel

Juan M. Vega

Service Manager

27 years industry experience

As Service Manager for Data Specialties Inc., Juan Vega oversees all of DSI's preventative maintenance services. In addition to assessing current and prospective customers' needs, Juan manages proposals, contracts and service providers to ensure that data centers and other critical facilities are receiving the maintenance and attention they require. In addition to managing our client contracts and relationships, Juan oversees the internal staffing for the reliable 24/7 response capability for which DSI has become known.

EDUCATION & TRAINING

– Electrical Construction and Maintenance Certificate
– Los Angeles Trade Technical College, Los Angeles, CA

LICENSES

– C-10 Electrical Contractor's License, California
– Certified Electrician, California

Ying Vang

Service Sales Manager

10 years IT experience

Ying Vang is the Service Sales Manager for Data Specialties Inc. She is responsible for the generation of all of DSI's mission critical systems service contract proposals for data centers. This includes Preventative Maintenance, Emergency On-Site Service, Warranty Extensions, Installations, De-installations, and On-Site Electrical Work required by our customers. Her role also consists of discovering new service sales opportunities and growing the service sales business by developing a strong pipeline of new customers and projects through direct or indirect customer contact and prospecting; while identifying and assisting with developing strategic relationships with partners and potential customers.

Prior to joining DSI, Ying has 10 years of expertise in Data Center Service Sales and Client Service. She has her BS Degree in Business Management from Southern California Institute of Technology in Anaheim. Her knowledge and understanding of the purpose of Service in the Mission Critical Industry, makes her a perfect fit.

Angel Cortez

Operations Manager

15 years industry experience

As Data Specialties Inc.'s Service Manager, Angel Cortez oversees all elements of our project operations. He maintains the warehouse, schedules contractors and drivers, ensures that the tools and materials are delivered as needed, and handles invoicing and time cards. His expertise enables DSI to track our performance against our schedules and budgets. Before joining DSI, Angel served in the U.S. Marine Corps.

Jonathan Rugg

Head of Design/Drafting Department

Jonathan Rugg is Data Specialties Inc.'s head of design and drafting department. His responsibilities include creating and managing all of the graphic designs, layouts, architectural and engineering schematics, and as-built drawings for our projects. Jonathan has a strong background in 3D BIM design so DSI can now provide customers with a complete 3 dimensional environment before work is started.

EDUCATION & TRAINING

– Westwood College of Technology, Anaheim, CA

Personnel

Royce A. Jones

Superintendent

31 years management experience,
14 years industry experience

Royce Jones transferred to the Construction Industry from Manufacturing and Plant Operations in 2000 and has performed numerous functions as a Tradesman, General Contractor, Estimator, Superintendent, Contract Administrator and Project Manager. Royce has participated in a number of diverse projects in California and Arizona. He brings a thorough, well rounded knowledge of design, engineering and construction to the job. In particular, his strengths lie in attention to details, maintaining a safe, clean and productive work environment and meeting schedules.

Darby Falkenstine, CDCDP

Project Manager

21 years industry experience

Thirty two years of experience in the Information Technology ("I.T.") with IBM Global Services. Professional experience includes Customer Service Engineering, Service Business Coordinator, Services Marketing Representative, Staff Project Manager and Advisory Project Leader. Project Management responsibilities included 20 years of data center planning and design for "turnkey" solutions, construction management, failure analysis consulting, modifications and relocation's of critical facilities along with cabling plant installations.

Before joining the IBM, Data Center Project Management team, Darby successfully engineered the marketing and implementation of IBM's Business Recovery Services solutions and other I.T. Services to Clients located in Northern California. This unique experience brings an added expertise of technical experience and insight into critical facility availability and design.

Architects/Engineers

Architects / Engineers

Russ T. Givens

President, R.E.Wall & Associates

39 years industry experience

Russell T. Givens, President of R. E. Wall & Associates, has an extensive 38-year background in project management and is primarily responsible for major industrial systems and commercial and institutional projects.

A graduate of California State University at Long Beach, he received a B.S. degree in Business Administration and Management with a minor in Physics. On behalf of the National Aeronautics & Space Administration, the Houston Spacecraft Center and the Army Missile Center and Naval Weapons Laboratory, he has conducted research and published nine articles on original plasma research.

Russ was an Illuminating Engineering Society of North America technical delegate to the People's Republic of China in 1984, conducting lectures and workshops throughout China. In 1989, he was an I.E.S.N.A. technical delegate to the Union of Soviet Socialist Republics and participated in a cross-cultural technical exchange in the Soviet Union. He is a former member of the Illuminating Engineering Society Handbook Committee and current member of the I.E.S.N.A. International Relations Committee, as well as a division member and United States representative of the International Commission on Illumination (C.I.E.).

PROJECT EXPERIENCE

- **KAISER CORONA DATA CENTER**
  Corona, CA
- **AMERICAN EXPRESS DATA CENTER**
  Charlotte, NC
- **DREAMWORKS DATA CENTER**
  Los Angeles, CA
- **SAN FRANCISCO TELECOM**
  San Francisco, CA
- **FLUOR DANIELS CORPORATE HEADQUARTERS**
  Aliso Viejo, CA
- **HUGHES COMMUNICATIONS, INC.**
  Long Beach, CA
- **TRANSAMERICA INFORMATION SERVICES DATA CENTER**
  Rancho Bernardo, CA
- **BENTLY MANUFACTURING**
  Minden, NV
- **QAULCOMM**
  San Diego, CA
- **AETHER SYSTEMS DATA CENTER**
  Phoenix, AZ
- **COSTCO DATA CENTER**
  Issaquah, WA

Raymond Weatherly

President, Spectrum Mechanical, Inc.

29 years industry experience

Raymond Weatherly has over 29 years of experience in Mission Critical Facility air conditioning. Having managed the design, project management, installation, commissioning and service of the following systems: Air cooled, water cooled and chilled water cooled air conditioning systems utilizing precision air conditioning floor mounted downflow and upflow systems with either raised floor plenums or overhead ducted systems. Systems manufacturers consist of Liebert, APC/Network AIR, Data Aire, Airflow, Stulz, etc. Air cooled, water cooled and chilled water cooled air conditioning systems utilizing Liebert XD high density air conditioning for Overhead XDO, Rack Mounted XDV, and In-Row XDH low pressure refrigeration systems. Air cooled, water cooled and chilled water cooled air conditioning systems utilizing APC/Network AIR high density air conditioning InRow RC, RD, and RP cooling systems.Chilled water cooled air conditioning systems utilizing Rittal high density air conditioning InRow LCP+ cooling systems. Building air conditioning systems utilizing single zone or VAV multi-zone ducted systems.

Raymond spent 13 years mechanical engineering prior to becoming a mechanical contractor.

PROJECT EXPERIENCE

- **IBM**
- **CSAA**
  Glendale, CA
- **CITY OF HOPE**
  Irwindale, CA
- **CITY OF SANTA MONICA**
  Santa Monica, CA
- **FOREVER 21**
  Los Angeles, CA
- **PACIFIC HOSPITAL LONG BEACH**
  Long Beach, CA

Architects / Engineers

Robert Ritner

Architect, Principal

22 years industry experience

Robert Ritner has built a client list of governmental, institutional and corporate clients including IBM, Swedish Hospital, Boeing, City of Hope National Medical Center, Paramount Studios/Viacom, CalTech, Kaiser Permanente, County of Orange, CB Richard Ellis, EDS, and Jones Lang LaSalle with specialization in Data Center and related facilities.

Robert has been a guest speaker at Emerson's Asia Data Center conference in Hong Kong and he received an award from Adaptec three years in a row ("Best in Class" for Adaptec's U.S. operations) on behalf of his company for it's dedication and quality of service. Services provided by Robert include Facility Evaluation, Programming, Design, and Technical Coordination of Governmental and Corporate Mission Critical Data Centers, Network Operations Centers and related office and support facilities.

Robert and his supporting team of Project Managers, Designers and Draftspersons, based in Orange County, have completed projects throughout the Western United States and China.

PROJECT EXPERIENCE

- **CITY OF HOPE**
  City of Hope, CA
- **BOEING**
  Anaheim, CA
- **ACATEL LUCENT**
  Milpitas, CA
- **DSI / IBM**
  Santa Barbara, CA
- **ABBOTT MEDICAL OPTICS (AMO)**
  Santa Ana & Milpitas, CA
- **SWEDISH HOSPITAL**
  Seattle, WA
- **DSI**
  Las Vegas, NV
  San Diego, CA
- **ABS COMPUTER TECHNOLOGIES**
  City of Industry, CA
- **NEW CENTURY FINANCIAL**
  Santa Ana, CA
- **CAL TECH.**
  Pasadena, CA
- **SCREEN ACTORS GUILD**
  Burbank, CA
- **FDIC DATA CENTER**
  Irvine, CA
- **MAJOR INSURANCE COMPANY**
  Phoenix, AZ
- **HITACHI DATA CENTER**
  Sacramento, CA
- **U.S. NAVY**
  Bremerton, WA


Panel P61-1


“We Build Data Centers”

Vendor Relationships

Vendor Relationships

Kawasaki

Liebert®
Keeping Business in Business

MITSUBISHI ELECTRIC

ORTRONICS

legrand®

PANDUIT®

PDI

PENTADYNE™
Clean Energy Storage™

POWERWARE
POWERING THE WORLD

Raritan.
Know more. Manage smarter.™

RITTAL

Russelectric
Power Control Right You Can Rely On

SIEMON™

SQUARE D
Schneider Electric

STARLINE
TRACK BUSWAY

STULZ

t.a.c

TOSHIBA

TRANE

UTC Power
A United Technologies Company

Safety & Insurance Information

Safety & Insurance Information

SAFETY

At Data Specialties Inc., we have developed a culture that promotes an injury-free environment and provides the safest workplace possible for our employees, subcontractors, clients and others who enter or who near our construction sites. Our health and safety program guides employee behavior in the workplace, on the jobsite, and at home.

We believe that accidents and injuries are preventable. We make sure our staff knows that everyone is responsible for safety. And we champion our health and safety measures because they are important to our people, our clients, our reputation and our ongoing business success.

We meet our high standards for safety through a variety of methods. We insist on a drug- and alcohol-free environment and conduct random drug testing to ensure ongoing compliance. We provide in-house training and reimburse for off-site courses and seminars in workplace safety, basic first aid, lifesaving techniques and emergency preparedness. We insist on accurate reporting, analysis and investigations of accidents or practices that may promote unsafe conditions.

On our projects, we provide our employees and subcontractors with the tools, knowledge and resources they need to increase safety, reduce risk and improve loss control on every project we manage. Before we reach the jobsite, we create project-specific safety plans that integrate our program with our clients' policies and procedures to achieve or surpass their goals. We hold ourselves accountable for implementing those plans and defining shared expectations with all subcontractors. We routinely complete pre-task safety planning, safe behavior observations, and regular monitoring and reporting. Our close coordination and communication with our clients and subcontractors ensure the safest possible work environment for all personnel.

Our approach to health and safety can be measured. DSI considers health and safety and quality of installations our top priority. Our diligence in regard to health and safety issues has resulted in a "oil refinery" level safety rating for the firm.

DSI Offers Comprehensive Data Center Design/Build Capabilities.

Design

- Infrastructure analysis
- Site evaluations
- Utility evaluations
- Master planning
- Conceptual engineering and budget studies
- Energy-efficient data centers "Think Green"
- Single "point-of-failure" study
- DCIM

Construction

- Project management
- Estimating and budgets
- Site supervision
- General construction services
- Site relocation and moving services
- Raised access floor systems
- Seismic support systems
- Disaster recovery reconstruction

Mechanical Systems

- Hot/cold aisle topology
- Energy efficient, "green" systems
- Environmental air conditioning systems
- Chilled water systems
- In-row cooling systems
- Rear Duty Heat Exchangers

Communications Infrastructure

- Wireless communications
- Multi-vendor Cabling systems (Cat 5e/6)
- Fiber optic cable installation
- Racks, trays and cabinets
- EIA/TIA standards
- Redundant network

Electrical Systems

- Uninterruptible Power Supply (UPS) systems
- Standby power systems
- Overhead busway installation
- Power distribution systems
- Power cable installation
- General lighting systems
- EPO systems
- Grounding systems
- Thermal testing and inspections
- Monitoring systems

Fire Protection Systems

- Integrated heat and ionization detection systems
- Hazardous gas detection and exhaust systems
- FM-200 fire suppression systems
- Pre-action sprinkler systems
- Integrated fire reporting, alarms and other building management systems
- VESDA

Security

- Access control systems
- Fingerprint, Biometrics recognition
- Infrared and ultrasound motion detection systems
- Offsite monitoring
- CCTV systems
- Facility analysis

Preventative Maintenance

- UPS/battery
- Air-conditioning
- Fire suppression
- Standby generator
- Communications infrastructure
- Data Center cleaning services

24-Hour Emergency Service

Data Center Build "Construction" Financing

1-800-454-5164
WeBuildDataCenters.com

Data Specialties Inc.

Corporate Office
8400 Kass Drive ▪ Buena Park, CA 90621 ▪ 1-800-454-5164

Regional Offices
Los Angeles ▪ Sacramento ▪ Phoenix ▪ St. Louis ▪ East Coast 2014

www.WeBuildDataCenters.com

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