

Steven Shapiro

P. E., ATD

Associate, Mission Critical Practice Lead, Senior Electrical Engineer

Experience

Steven Shapiro has been in the mission critical industry for over 26 years and has a diverse background in the study, reporting, design, commissioning, development and management of reliable electrical distribution, emergency power, lighting, and fire protection systems for high tech environments. His experience also includes providing analysis of critical application support facilities. Mr. Shapiro has extensive experience in the design and management of corporate and mission critical facilities projects with over 4 million square feet of raised floor experience, over 175 MW of UPS experience and over 350 MW of generator experience. Mr. Shapiro is the author of numerous technical articles & seminars. Recently, he was the electrical project manager and lead electrical engineer for the concurrent design of two greenfield data centers for HP in the US and Canada, as well as the concurrent design of two greenfield data centers and NOC facility for Itau in Brazil. Some of his clients include, NYSE/Euronext,, UBS, Morgan Stanley, HP, Citigroup/Salomon Smith Barney, Bank One, AT&T, Avon, Philip Morris, Aetna, DRT, Savvis and IBM.

Steven has been involved with the following types of projects as the lead or contributing Engineer and/or Commissioning Agent.

- **Citigroup, Roanoke, TX**

Selected by Citigroup as the design engineer for a Greenfield data center in Texas (NTDC). The NTDC was a new "ground-up" single story 243,000 sq. ft. facility with 100,000 sq. ft. of raised floor computer environment. The remainder of the space was an office environment, MEP infrastructure, maintenance, service and related support spaces. The NTDC was highly robust in its capacity, reliability and maintainability including high wind resistance, security measures and redundancy in infrastructure. It also enveloped the "infinite flexibility" philosophy which allows it to deploy any technology anywhere, anytime. This included high density server cabinets.

- **JP Morgan Chase / Bank One, Various Locations**

Assisted Bank One on a nationwide search for three state of the art data center sites. Assessed a number of data centers that had been evacuated by other Internet companies that went out of business. A vacant warehouse in Illinois was located and built out as a class high reliability data center. Simultaneously, two 40-acre tracts of land were selected in Delaware were built from the ground up into state of the art data centers. These two Greenfield sites were geoplex facilities and 250,000 sq. ft. The design model allows for scalable growth.

Education

- B.E. Electrical Engineering, Stevens Institute of Technology, 1986

Memberships and Licenses

- NCEES, International Registry
- Registered Engineer in New York
- Uptime Institute Accredited Tier Designer
- 7x24, IEEE, IES, NFPA, AFCOM

- **Project Bluestone, Shelton, Connecticut**

Providing M/E/P/FP services for their new two story 225,000 sq. ft. Tier 4 Greenfield Data Center project. The new data center will operate as a 24/7 mission critical facility to include approximately 90,000 sq. ft. of raised floor/data center space, as well as MEP support space, IT ancillary space, general office space. The facility will be concurrently maintainable with no single point of failure, and with an initial minimum electrical load density of 100 W/sq. ft.

- **NYNEX, New York, NY**

Performed assessment and design for 1 million s.f. office/data center equipment building with on-going renovations.

- **Philip Morris/Altria, Rye Brook, NY**

Provided various reliability improvement projects for Philip Morris' data centers including the design and construction administration for 2 – 1500 kVA UPS systems and 3 - 1250 kW diesel generators, all incorporated into the existing data center without de-energizing the critical load. Eliminated Single Points of Failure. Improved computer cooling.

- **JFK Medical Center, Edison, NJ**

Provided complete engineering services for JFK Medical Center. This facility is a 424 bed major medical center and health care complex that offers an extensive level of various service. The total size of this facility is approximately 500,000,000 s.f. Scope of work included design power systems for emergency rooms, treatment rooms, lobby space, nurse's call phone system, MRI scanning facilities, CAT scanning facilities, examination rooms, public and private offices.

- **Global Center/Global Crossing/Exodus, Various Locations**

Provided greenfield services, existing facility reliability improvement and fit-out projects and evaluations including design and construction administration and commissioning for sites in New York, New Jersey, Massachusetts and California.

DRT, Various Locations

Provided various reliability improvement and fit-out projects and evaluations for colocation clients including design and construction administration for sites in New Jersey.

▪ **Savvis, Various Locations**

Provided various reliability improvement and fit-out projects and evaluations for colocation clients including design and construction administration for sites in New York, New Jersey and Massachusetts.

▪ **AT&T, Various Locations**

Provided various projects for AT&T central offices, enterprise and colocation data centers including the design, construction administration and commissioning for existing and greenfield sites across the US. Work included DC plants, UPS system, diesel generation and turbines.

▪ **Verizon Wireless, Branchburg NJ**

Lead Commissioning Agent for 50,000 SF data center expansion of operating site.

▪ **Saskpower, Regina Saskatoon**

5,000 SF Greenfield Data Center, Data Center Practice lead for the development of a new facility.

▪ **HP, Various Locations**

Developed the prototype "Next Generation Data Center" for HP direct use/colocation.

▪ **HP, Streetsville, Ontario**

50,000 SF expansion, providing design, construction administration, and commissioning.

▪ **HP, Markham, Ontario**

25,000 SF expansion, providing design, construction administration, and commissioning.

▪ **HP, Colorado Springs, Colorado**

New 100,000 SF Scalable Greenfield facility, providing design, construction administration, and commissioning.

▪ **New York Stock Exchange, Mahwah, NJ**

100,000 SF Scalable Greenfield data center, providing design and construction administration, 135kV electric service, 28MW generation, 15MVA UPS in a two story facility.

▪ **Itau, Sao Paulo, Brazil**

(6) 50,000 SF Greenfield Data Centers and dedicated NOC facility in Sao Paulo Brazil, providing design and construction administration

▪ **Verizon, Various Locations**

Provided various projects for Verizon central offices and enterprise data centers including the design, construction administration and commissioning for existing sites across the US. Work included DC plants, UPS system, diesel generation and turbines.

▪ **Rogers, Various Locations**

Provided various projects for Rogers central offices and data centers including the design, construction administration and commissioning for existing sites across Canada. Work included DC plants and diesel generation.

▪ **Commissioning Agent**

Various data centers nationwide. Work includes developing commission plans, procedures and reviewing methods of procedure and scripts as well as implementing these step by step in the field.

Speaking Engagements:

- 7x24 Exchange NY/Delaware Chapter Meeting – Summer 2010
- HP Regional Technical Seminars in NY, Bogotá Colombia, Mexico City Mexico, Sao Paulo Brazil, 2008-2012
- Atlanta AFCOM Chapter Meeting 2012
- Morrison Hershfield Regional Technical Seminars in Atlanta and Toronto in 2012-2014
- Mission Critical Magazine Webinar 2013
- Data Center World (AFCOM) – Spring 2014 Las Vegas
- Data Center World (AFCOM) – Fall 2014 Orlando
- Data Center World (AFCOM) – Spring 2015 Las Vegas