

System Specification & Project Manual: Volume 1: Optimized for Small and Medium Data Centers



Abstract

Scope of this book

This book is a specification for a small to medium data center of 5-100 racks. For smaller installations, please refer to the APC Press companion book, *System Specification and Project Manual, Volume 2: Optimized for Telecom / Networking / Server Rooms*. For larger installations, this book cannot replace the services of a qualified consulting engineer, although it can be used as a reference and educational resource for the user as the system is being designed.

Format of this book

This book is directed toward the data center IT community – it is therefore organized specifically toward the IT viewpoint of the data center design/ build process, not toward the general construction of a building. Facilities and trades personnel will notice that the format of this specification deviates from the way construction specifications are usually published, and does not strictly follow CSI division ordering, although all items are numbered according to CSI MasterFormat 2004.

This book is divided into three parts:

STANDARD PROCESS - Overview of the standardized data center design/ build project process

(Section 2)

To be read and reviewed by data center personnel

This part of the book illustrates how project phases, steps, and tasks relate to each other in sequence, to accomplish the work needed to create the system.

USER REQUIREMENTS – Forms for gathering user-specific data for this project

(Section 3)

To be filled out by data center personnel with data center consultant

The data gathered in this part of the book will be used to generate an appropriate design for the system. It also includes checklists for documenting who will assume the various roles and responsibilities of the project's process.

STANDARD SYSTEM SPECIFICATION - The common “rules” for building any small/medium data center

(Sections 4-11)

To be reviewed by IT and Facilities

This part of the book provides detailed specifications for building a standardized data center including power, cooling, fire suppression, security, management, and racks. This standard specification uses the 2004 edition MasterFormat CSI numbering system.

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