

Essentials of Data Center Projects

2nd Edition



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2nd Edition



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BICSI World Headquarters
8610 Hidden River Parkway
Tampa, FL 33637-1000 USA
Tel.: +1 813.979.1991 or
Tel.: 800.242.7405 (USA & Canada toll-free)
Fax: +1 813.971.4311
E-mail: bicsi@bicsi.org
Website: www.bicsi.org



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SMETL: **Brian Flynn**, RCDD, NTS, OSPDRM, RTPM;
General Motors Corporation

SME Contributors: **Richard S. Anderson**, RCDD; *Servamatic*
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Rui Takei, RCDD, DCDC; *AT TOKYO Corporation*

Acknowledgments, continued

The following BICSI Professional Development staff members produced this publication at BICSI World Headquarters, Tampa, FL.:

**Vice President of
Professional Development:** Penni Ferguson

**Project Manager/
Director of Publications:** Clarke Hammersley

Director of Standards: Jeff Silveira

Technical Editors: Clarke Hammersley
Jeff Silveira

Senior Publications Designer: John Ditzel

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Acronyms and Abbreviations

12/5	twelve hours a day, five days a week
24/7	twenty-four hours a day, seven days a week

== A

AC	actual cost
ACWP	actual cost of work performed
A/E	architecture and engineering
AHJ	authority having jurisdiction
AV	audiovisual

== B

BAC	budget at completion
BAS	building automation system
BCWS	budgeted cost of work scheduled
BMS	building management system
BWCP	budgeted cost of work performed

== C

CA	construction administration
CAD	computer-aided design
CAPEX	capital expenditure/capital expense
CD	construction document
CM	construction manager
CMAR	construction manager at risk
CMP	communications plenum cable
CPI	cost performance index
CPM	critical path method
CV	cost variance

Acronyms and Abbreviations

== D

DB	design-build
DBB	design-bid-build
DCDC	Data Center Design Consultant
DCiE	data center infrastructure efficiency
DD	design development
DRP	disaster recovery plan
DX	direct expansion

== E

E&O	errors and omissions
EAC	estimate at completion
EDC	edge data center
EF	entrance facility
EMI	electromagnetic interference
EMT	electrical metallic tubing
ER	equipment room
ESS	electronic safety and security
ETC	estimate to completion
EV	earned value
EVM	earned value management

== F

FO	field order
----	-------------

== G

GC	general contractor
GDPR	General Data Protection Regulation
GMP	guaranteed maximum price

== H

HIPPA	Health Insurance Portability and Accountability Act
HVAC	heating, ventilation, and air-conditioning

== I

IaaS	infrastructure as a service
ICT	information and communications technology
IP	Internet protocol
IPD	integrated project delivery
IT	information technology
ITE	information technology equipment

== M

MDC	modular data center
MMR	meet-me-room
MTBF	mean time between failures
MTTR	mean time to repair

== N

NCS	The U.S. National Computer-Aided Design Standard®
NDA	non-disclosure agreement
NPV	net present value
NTP	notice to proceed

== O

O&M	operations and maintenance
OBS	organization breakdown structure
OPEX	operational expenditure / operating expense

Acronyms and Abbreviations

==P

PaaS	platform as a service
PBX	private branch exchange
PDU	power distribution unit
PE	professional engineer
PM	project manager
PO	purchase order
POP	point-of-presence
PPE	personal protective equipment
PUE	power usage effectiveness
PV	planned value

==Q

QA	quality assurance
QC	quality control

==R

RFI	request for information
RFP	request for proposal
RFQ	request for quotation
ROI	return on investment
RPP	remote power panel
RU	rack unit

==S

SaaS	software as a service
SAN	storage area network
SD	schematic design
SLA	service level agreement

SoW	scope of work
SP	service provider
SPI	schedule performance index
SV	schedule variance

==T

TCO	total cost of ownership
TCPI	to complete performance index
TR	telecommunications room

==U

UDS	Uniform Drawing System
μEDC	micro edge data center
UPS	uninterruptible power supply
UTP	unshielded twisted-pair

==V

VAC	variance at completion
-----	------------------------

==W

WBS	work breakdown structure
-----	--------------------------

==X

XaaS	<i>anything</i> as a service
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Table of Contents

Chapter 1: Data Centers

Data Centers	1-1
Creating Data Centers	1-8
Multiple Data Centers	1-23
Edge Data Centers	1-28
Data Center Services Outsourcing	1-31

Chapter 2: Project Planning

Project Planning	2-1
Request for Proposals	2-3
Design Planning	2-15
Operations and Business Continuity Factors	2-30
Colocation Technical Planning	2-54
Planning for the Edge Data Center (EDC) Facility	2-64

Chapter 3: Project Implementation

Pre-Construction	3-1
Project Installation and Implementation	3-14
Commissioning	3-24
Project Closeout	3-35

Chapter 4: Project Management Essentials

Project Management: An Overview	4-1
Project Management Tools	4-8
Stakeholder Relations and Management	4-32

Chapter 5: Project Documentation

Project Documentation	5-1
Types of Project Documentation	5-12

Chapter 6: Risk Management

Risk Management	6-1
---------------------------	-----

Glossary

Figures

Chapter 1: Data Centers

Figure 1.1	Relationship of spaces in a data center	1-3
Figure 1.2	Simplified planning process for a data center	1-8
Figure 1.3	Relationship of factors in data center services availability class	1-18
Figure 1.4	Reliability framework across all service layers.	1-24
Figure 1.5	Example of a multi-data center Class 3	1-25
Figure 1.6	Example of a multi-data center Class 3 with three Class 2 facilities.	1-26
Figure 1.7	Multi-data center Class 4 example with four Class 2 facilities	1-27
Figure 1.8	Example of a containerized edge data center	1-29
Figure 1.9	Outsourcing model matrix	1-33
Figure 1.10	Outsourcing decision tree.	1-37

Chapter 2: Project Planning

Figure 2.1	Traditional design process	2-15
Figure 2.2	Data center design process	2-16
Figure 2.3	Client/supplier model.	2-29
Figure 2.4	Security balance	2-33
Figure 2.5	Vulnerability model	2-36
Figure 2.6	Elements of a security program	2-41
Figure 2.7	Layering.	2-42
Figure 2.8	Typical core risk management team	2-49

Chapter 3: Project Implementation

Figure 3.1	Change control process	3-12
------------	----------------------------------	------

Chapter 4: Project Management Essentials

Figure 4.1	Project management project responsibilities.	4-1
Figure 4.2	Simple organizational breakdown structure	4-8
Figure 4.3	PERT or network logic diagram using the precedence diagram method	4-13
Figure 4.4	Work breakdown structure network diagram task	4-14
Figure 4.5	Network diagram	4-14
Figure 4.6	Milestone chart	4-15
Figure 4.7	Gantt chart	4-16
Figure 4.8	Calendar of schedule.	4-17
Figure 4.9	Project earned value management chart	4-31
Figure 4.10	Communications perceptions	4-35
Figure 4.11	Example of a stakeholder management plan	4-37

Chapter 5: Project Documentation

Figure 5.1 U.S. National Computer-Aided Design Standard® layer name format 5-9

Chapter 6: Risk Management

Figure 6.1 Risk management life cycle 6-1

Figure 6.2 Client involvement 6-3

Figure 6.3 Strengths, weaknesses, opportunities, and threats (SWOT) analysis template 6-6

Figure 6.4 Example of a cause and effect analysis 6-7

Figure 6.5 Example of a risk severity grid 6-10

Table of Contents

Tables

Chapter 1: Data Centers

Table 1.1	Relationship between availability percentage and allowable downtime . . .	1-5
Table 1.2	Data center availability class requirements	1-15
Table 1.3	Identifying operational requirements: time available for planned maintenance shutdown	1-19
Table 1.4	Identifying operational availability rating: maximum annual downtime (availability %)	1-20
Table 1.5	Classifying the impact of downtime on the mission	1-21
Table 1.6	Determining data center services Availability Class.	1-22

Chapter 4: Project Management Essentials

Table 4.1	Example of a work breakdown structure	4-11
Table 4.2	Work breakdown structure in a text outline format	4-12
Table 4.3	Example of a work breakdown structure with work packages	4-20
Table 4.4	Project work breakdown structure with schedule and labor hours	4-21
Table 4.5	Planned value table.	4-22
Table 4.6	Earned value tracking	4-24
Table 4.7	Week two update	4-25
Table 4.8	Week two earned value	4-25
Table 4.9	Week two actual cost.	4-26
Table 4.10	Formulas	4-26
Table 4.11	Week two status	4-28
Table 4.12	Week four status.	4-29
Table 4.13	Week six status	4-30
Table 4.14	Project communications.	4-34

Chapter 6: Risk Management

Table 6.1	Risk analysis chart	6-8
Table 6.2	Severity grid risk level key	6-12
Table 6.3	Risk checklist	6-14



Chapter 1 Data Centers

Chapter 1 provides a summary of data centers, availability classes, and common metrics which can be used in meeting a potential owner or client's data center needs. The BICSI methodology for using availability classes to define preliminary concepts and requirements is included, and material on edge data centers, the use of multiple data centers, and data center service outsourcing is also provided.