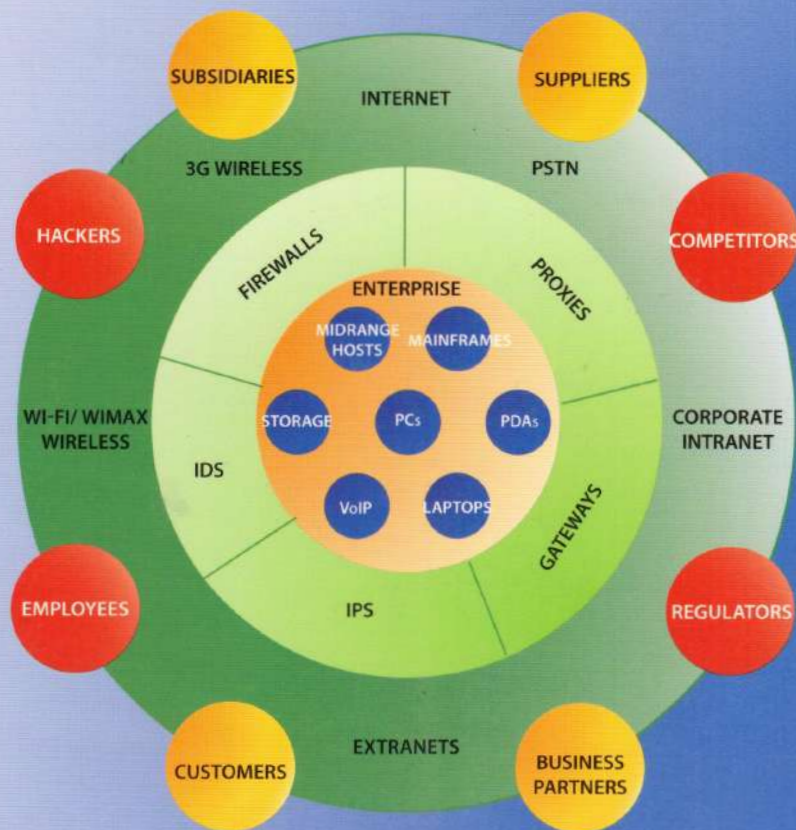


MINOLI-CORDOVANA'S AUTHORITATIVE COMPUTER & NETWORK SECURITY DICTIONARY



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Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada.

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Library of Congress Cataloging-in-Publication Data is available.

Minoli, Daniel, 1952—

Minoli-Cordovana's authoritative computer & network security dictionary / Daniel Minoli, James Cordovana.
p. cm.

Includes bibliographical references and index.

ISBN-13: 978-0-471-78263-6

ISBN-10: 0-471-78263-7

1. Computer security—Dictionaries. 2. Computer networks—Security measures—Dictionaries. I. Cordovana, James, 1973— II. Title. III. Title: Minoli-Cordovana's authoritative computer & network security dictionary. IV. Title: Authoritative computer & network security dictionary.

QA76.9.A25M583 2006

005.8003—dc22

2006041021

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

from either accidental or unauthorized, intentional modification, destruction, or disclosure during input processing, or output operations [r057].

Operational Integrity A synonym for "system integrity"; emphasizes the actual performance of system functions rather than just the ability to perform them [r013].

Operations Security (OPSEC) A process to identify, control, and protect evidence of the planning and execution of sensitive activities and operations, and thereby prevent potential adversaries from gaining knowledge of capabilities and intentions [r013].

Operations System A physical block which performs operations systems functions (OSFs).

Operations Systems Function (OSF) A function block that processes information related to the telecommunications management for the purpose of monitoring/coordinating and/or controlling telecommunication functions including management functions [i.e. the Telecommunications Management Network (TMN) itself] [r068a].

Operations Systems Support (OSS) (aka Operations Support System) The back-office software used for configuration, performance, fault, accounting, and security management [r068a].

OPES See Open Pluggable Edge Services

OPSEC See Operations Security

Optical Amplifier (optical transmission term) A device that amplifies the input optical signal without converting it to electrical form.

Optical Fiber, Newer Generation (optical transmission term) Examples include Extended Wavelength Band (EWB)/dispersion-flattened fibers that allow the utilization of wavelengths farther from the optimum wavelength without pulse spreading; and fiber that allow the energy to travel further into the cladding, creating a small amount of dispersion to counter four-wave mixing.

Optical Impairments (optical transmission term) Impairments can be classified into two categories, linear and nonlinear. Linear effects are independent of signal power and affect wavelengths individually. Amplifier spontaneous emission

(ASE), polarization mode dispersion (PMD), and chromatic dispersion are examples. Nonlinearities are significantly more complex: they generate not only impairments on each channel, but also crosstalk between channels [r349].

Optical Internetworking Forum (OIF) (optical transmission term) An industry-bred organization consisting of several hundred equipment manufacturers, telecom service providers, and users whose goal is to foster interoperability among optical equipment. It developed the optical UNI 1.0.

Optical Layer Cross-Connect (OLXC) (optical transmission term) A crossconnect system (a transmission-level network element) that operates at the optical level. In effect, a "slow" (crossconnect-speed) optical switch.

Optical Mode (optical transmission term) A "ray" of light. Light entering a waveguide can be regarded as confined and is referred to as an optical mode. The properties of the optical mode are determined from the characteristics of the propagating light and the refractive indices of the absorbing cladding and/or substrate regions. Propagation of the confined mode can be defined unambiguously by a property of the mode called its effective index. Propagation is a function of the wavelength.

Observations show that the optical mode is not totally confined in an ideal fashion within the waveguide region but also extends into the neighboring regions. The shape of the optical modes in these regions is referred to as evanescent.

Single-mode fibers transmit a single (one) mode of light. Multimode fibers transmit multiple modes. Telecom systems are based on single-mode fibers (multimode fibers find some applications in short-run applications in data centers, central offices, and inter-rack and/or collocated inter-rack cabling.)

Propagation is a function of the wavelength. The cut-off wavelength is the wavelength at which an optical fiber operates as singlemode: at wavelengths shorter than cut-off several optical modes may propagate and the fiber operates as multimode. As the cut-off wavelength is ap-