

[MS-OXDOCO]: Exchange Server Protocols Document Roadmap

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Revision Summary

Date	Revision History	Revision Class	Comments
04/04/2008	0.1	Major	Initial Availability.
06/27/2008	1.0	Major	Initial Release.
08/06/2008	1.01	Minor	Revised and edited technical content.
09/03/2008	1.02	Minor	Changed document title.
12/03/2008	1.03	Minor	Updated IP notice.
04/10/2009	2.0.0	Major	Updated technical content for new product releases.
07/15/2009	3.0.0	Major	Revised and edited for technical content.
11/04/2009	4.0.0	Major	Updated and revised the technical content.
02/10/2010	4.0.0	None	Version 4.0.0 release
05/05/2010	4.0.0	None	Version 4.0.0 release
08/04/2010	4.0.0	No change	No changes to the meaning, language, or formatting of the technical content.
11/03/2010	4.0.0	No change	No changes to the meaning, language, or formatting of the technical content.

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1 Documentation Scope and Objectives

The Microsoft Exchange Server protocols documentation provides detailed technical specifications for and information about the protocols, protocol extensions, and structures that Microsoft® Exchange Server 2003, Microsoft® Exchange Server 2007, and Microsoft® Exchange Server 2010 use to provide messaging and other services to client devices and applications that interoperate with those versions of Exchange. Each specification describes the technical requirements, dependencies, and limitations of a protocol and any behaviors that are specific to Exchange 2003, Exchange 2007, and Exchange 2010.

In addition to the technical specifications, the documentation includes overview and reference documents that provide conceptual background information, overviews of interprotocol relationships and interactions, and technical reference information, such as common data types and error codes.

2 Audience

The Microsoft Exchange Server protocols documentation is intended for use in conjunction with publicly available standard specifications, network programming art, and Microsoft Exchange distributed systems concepts. It assumes that the reader is either familiar with this material or has immediate access to it.

This documentation provides the following levels of audience support:

- For implementers: Provides sufficient conceptual and reference information to successfully implement one or more protocol specifications for a given task or scenario.
- For reviewers: Provides a definitive resource for readers who want to evaluate or understand one or more of the protocols.

3 Documentation Architecture

The Microsoft Exchange Server protocol documentation includes three types of documents:

- [Overview documents](#)
- [Reference documents](#)
- [Protocol specifications](#)

3.1 Overview and Reference Documents

The Microsoft Exchange Server protocol documentation includes overview documents that describe how the documentation is organized. These documents provide conceptual information about messaging and client-server interactions. They also give an overview of the broad functional areas that are implemented by one or more protocols to perform a predefined task, such as sending a message or retrieving user information.

In addition to the overview documents, the documentation includes companion reference documents that provide supporting material to assist in understanding and implementing the documented protocols.

The overview and reference documents are listed in the following table.

Overview/reference document name	Description
Exchange Server Protocols Document Roadmap [MS-OXDOCO]	Describes the objectives, audience, organization, and conventions of the documentation.
Exchange Server Protocols System Overview [MS-OXPROTO]	Provides an overview of the protocols and functionality used by clients and servers.
Windows Data Types [MS-DTYP]	Describes the common data types used in the protocol specifications.
Exchange Server Protocols Master Glossary [MS-OXGLOS]	Provides an A to Z list of common terminology used in the documentation.
Cabinet File Format [MS-CAB]	Specifies the cabinet file format, which is used for compressed packages that contain a number of related files.
MCI Compression and Decompression [MS-MCI]	Specifies the MSZIP compressed data format, which is used to encode and decode MSZIP compressed data in cabinet files.
Exchange Server Protocols Master Reference [MS-OXREF]	Provides an A to Z list of all references (normative and informative) used in the documentation.
LZX DELTA Compression and Decompression [MS-PATCH]	Specifies LZX Delta compression, which is a derivative of the Microsoft Cabinet LZX format with some modifications to facilitate efficient delta compression.

3.2 Protocol Specifications

A protocol is a set of rules for exchanging information between two operating system products running on different computers connected via a network to accomplish predefined tasks.

The protocol specifications describe rules that govern the format, semantics, timing, sequencing, and error control of messages exchanged over the network. The specifications do not include source code or other internal details of specific implementations of the protocol, such as internal state management, data validation methods, processing algorithms and logic, or architecture of a particular product or set of software components. They do not include data specific to a user, application, or installation.

There are three types of protocol specifications, as described in the following table.

Protocol specification type	Description
Remote procedure call (RPC)-based protocol specification	<p>Describes a request-response RPC-based protocol (includes Distributed Component Object Model (DCOM)) in which all arguments come directly from the higher layer and all return codes, output parameters, and exceptions are passed unmodified. This type of specification contains the following sections:</p> <ul style="list-style-type: none"> Introduction Messages Protocol Details Protocol Examples Security Appendix A: Full IDL Appendix B: Product Behavior Index
Block protocol specification	<p>Describes a block protocol. This type of specification contains the following sections:</p> <ul style="list-style-type: none"> Introduction Messages Protocol Details Protocol Examples Security Appendix A: Product Behavior Index
Data structure specification	<p>Describes data structures. This type of specification contains the following sections:</p> <ul style="list-style-type: none"> Introduction Structures Structure Examples Security Considerations Appendix A: Product Behavior Index

The protocol specifications provide the following information:

- Definition of terms used in the specification.
- List of normative and informative references.
 - Normative references specify stable, published documents that contain information that is required in order to understand or implement the technology in the protocol specification. This

includes public specifications that define the relevant protocols and documents described in the Product Behavior section of the specification. All normative references used in a given specification are listed. Citations are enclosed in square brackets []. All references are listed in alphanumeric order.

- Informative references provide additional, optional information that might be relevant to the protocol being described. For example, an informative reference might provide background or historical information. Informative references are not required in order to implement the technology in the protocol. Informative references are stable, published documents.
- Product behavior notes. If a protocol specification cites a normative reference that uses normative, but not imperative, key words, such as SHOULD or MAY, or is ambiguous in some areas, the specification describes the interpretations and design decisions that were made when defining and implementing the protocol. If a protocol deviates from mandatory parts of a normative reference, the specification identifies such cases and describes protocol-specific behaviors. In addition, if a protocol does not conform to mandatory statements that are in a normative reference, those exceptions are identified in the protocol specification. The terms MAY, SHOULD, MUST, SHOULD NOT, and MUST NOT are used as described in [\[RFC2119\]](#).
- An overview of what the protocol does and how the protocol is implemented. Some specifications include architectural diagrams to describe the protocol architecture and communication sequence.
- Detailed information about data being transferred. This information varies depending on whether the protocol is an RPC-based protocol or a block protocol. In the context of this documentation, an RPC-based protocol is defined as a protocol based on a set of methods defined in one or more Interface Definition Language (IDL) files. In contrast, a block protocol is defined as a protocol that sends data in packets.
- Protocol interaction information among protocols. For example, if Protocol X is typically transported by TCP/IP, the specification describes the transport mechanism and the interactions with the first layer down from the protocol.
- State information, when applicable.

4 Microsoft Exchange Server Protocols Web Site

The Microsoft Exchange Server protocol documentation is available online at <http://msdn.microsoft.com/en-us/library/cc307725.aspx>. The documentation is designed to make protocol technology available to relevant undertakings and to allow the use of the technology. Please check the Web site periodically for updates.

5 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

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