



Preface

Cisco Validated Design

This document describes the Cisco Ethernet-to-the-Factory (EttF) Architecture, which offers value inside industrial operations when part of a larger integrated, industrial automation architecture.

Document Organization

This document contains the following chapters and appendices.

Chapter or Appendix	Description
Chapter 1, “Ethernet-to-the-Factory Solution Overview.”	Provides an overview of the Cisco Ethernet-to-the-Factory solution.
Chapter 2, “Solution Architecture.”	Provides an overview of the EttF solution architecture, as a means to describe the various systems, components, and their relation to each other to give context to the networking function and technical requirements.
Chapter 3, “Basic Network Design.”	Provides guidelines and best practices for IP addressing, and the selection of routing protocols based on the manufacturing zone topology and server farm access layer design.
Chapter 4, “Implementation of the Cell/Area Zone.”	Outlines recommendations, best practices, configurations, and caveats for implementing a cell/area zone architecture in an EttF environment.
Chapter 5, “Implementation of Security.”	Describes the security components of the EttF solution that address the major security concerns of defending against threat, establishing trust boundaries and verifying identity, and securing business communications.
Chapter 6, “Implementation of High Availability.”	Describes design considerations and best practices for high availability in the cell/area zone, manufacturing zone, and the DMZ, as well as testing results.

Chapter or Appendix	Description
Chapter 7, “Implementation of Network Management.”	Describes the use of network management tools such as Cisco Network Assistant and Cisco Adaptive Security Device Manager.
Appendix A “Characterization of the EttF Cell/Area Zone Design.”	Outlines the validation methodology and the corresponding results of the testing.
Appendix B “Configuration of the EttF Cell/Area Zone.”	Provides sample configurations for the cell/area zone.
Appendix C “Configuration of the EttF Demilitarized Zone.”	Provides sample configurations for the DMZ.
Appendix D “EttF High Availability Testing.”	Outlines the validation methodology and the corresponding results of the high availability testing.

Document Modification History

The following table shows the modification of this document:

Version	Date	Comments
1.0	April 2007	Original.
1.1	July 2007	External market with co-branded template.
1.2	July 2008	Minor editorial changes and clarifications. Definition of key terms added. No changes were made to recommendations no additional features/functions added.

Cisco Validated Design

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