1.0 PURPOSE

The purpose of this standard operating procedure (SOP) is to describe the daily business activity business process of the EDI/e-Commerce Gentran Integration Suite (GIS) for the Global ERP system. GIS allows Amgen to exchange electronic documents in a predetermined electronic format between Amgen's trading partners and the Global ERP system.

2.0 SCOPE

This SOP applies to the GIS software. The intended audience of this SOP is the EDI/EC Business/System Analyst and System Administrators/Developers. Procedures related to the cross-functional business units are not included in this SOP. This SOP applies to the following locations:

- Amgen Thousand Oaks
- Center of Excellence
- Louisville Distribution Center
- European Logistics Center
- Amgen Canada
- Amgen Australia

3.0 ROLES AND RESPONSIBILITIES

Role	Responsibility
System Administration/Develop ment	Works closely with Operations, the System Administrator/Developer Creates and updates the Electronic Data Interface/Electronic Commerce (EDI/EC) maps, including development and configuration, between the ERP and the GIS systems
Operations Team	 Works closely with the Systems Administrator and Network team to monitor and maintain the system Works closely with System Developers to remediate EDI/EC map issues
Network team	Works closely with the System Administrators and Operations team to monitor and maintain network connectivity and assure continued EDI/GIS processes
	Works closely with developers to remediate EDI/EC map issues

4.0 REFERENCES

This SOP refers to the current version of the following:

- ISCM 00038 Change Control Process
- ASC-9005-PCS-00 SAP Development Standards
- SOP-001265 Configuring and Maintaining GIS

5.0 GENERAL

5.1 Important Concepts

GIS-related hardware and software is properly maintained and upgraded as necessary to support GIS middleware transfers as noted in ISCM 00038, *Configuring and Maintaining GIS*.

5.2 Definitions

Term	Definition
ANSI X12 Standards or EDIFACT Standards	Standards or version nationally recognized for transmitting and communication between two systems. A standardized format that regulates the syntax, structure, and content of the transition data. EDI ANSI X12 = USA, UN EDIFACT = Europe
Applicability Statement 2 (AS2)	Applicability Statement 2 is a secure point-to-point communication between two trading partners such as HTTP, HTTPS, VPI, or other secure point-to-point protocol. The delivery of data is confirmed by sending MDN (Message Digest Notification), which verifies a successful handshake between the two points.
Business Process Modeling Language (BPML)	A meta language for the modeling the business process
Commercial Off the Shelf Application (COTS)	An application generally available for sale as opposed to an application that is not for sale
Electronic Commerce (EC)	Transactions that are exchanged via an electronic network
EDIINT	Electronic Data Interchange-Internet Integration is the transfer of EDI over the Internet.
GIS	Gentran Integration Suite—structured on a single code base, written in Java that enables development of new features
Trading Partner	A business relationship with a supplier or customer where Amgen has mutually agreed upon procedures for Electronic Data Interchange of business transactions
Trading Partner Relationship	The unique business relationship between Amgen and a customer or vendor for each type of document sent or received electronically
Translator Software	A software program that validates and edits raw information for a data file, adds control parameters, delimiters, and prepares the information to be communicated between trading partners using a trading partner relationship. This software translates and maps the data between incoming and outgoing files.
Value Added Network (VAN)	Value Added Network is a third party vendor that provides EDI services such as electronic mailboxes and software; i.e., Sterling Commerce, Net, GXS.

5.3 Abbreviations

Abbreviation	Definition
EDI	Electronic Data Interchange
GIS	Gentran Integration Suite

5.4 Equipment

Not Applicable

5.5 Materials

Not Applicable

5.6 Safety Precautions

Not Applicable

6.0 PROCEDURE

6.1 Setting up a Trading Partner

Refer to Appendix 1 to view the EDI Business Activity procedure.

Customers vetted and approved as trading partners by the appropriate functional business owners and are added to the system using standard Gentran Integration Suite (GIS) supplied functions for configuration information, such as document envelopes. Creating document envelopes is necessary for Electronic Data Interchange (EDI) to successfully exchange information.

Document envelopes are specific to the type of EDI protocol Gentran Integration Suite supports the use of ACH-CTX, CII, EDIFACT, TRADACOMS, ODETTE, and ASC X12 protocols. Of these, CII, TRADACOMS, and ACH-CTX use only one level of envelope, the message header group header. The remaining protocols each have three layers of envelopes:

- Transaction set (outermost)—contains everything in the order
- Interchange (middle)—contains an interchange header and trailer. All data sent from one sender to one receiver in the same transmission.
- Functional group (inner)—contains a group header and trailer that surround a group of transaction sets of the same type

Required information used in naming and configuration:

- Trading partner name
- Direction Inbound/Outbound
- Envelope ID. For example, UNH for EDIFACT transaction sets
- Document type. For example, ORDERS (EDIFACT)

• Map name to be associated with this envelope to translate the document

6.2 GIS Transaction Processing

A trading partner transmits a document, such as a purchase order, using a transport protocol (SMTP, EDIINT, FTP, or HTTP/HTTPS/VPI/AS2/AS1) through the appropriate service using a FTP, SFTP, or a perimeter server to Amgen.

- 6.2.1 The arrival of the document triggers the business process that has been configured for the documents, and the specific trading partner. GIS manages the progression of steps in the business process.
- 6.2.2 The business process removes the transport document envelope wrapper to obtain instructional information in order to perform content-based routing directions and translation of the body content of the document.

Based on the document data, the business process progresses to the next step. This includes translation and passing the document through SAPJCO adapter into SAP, developed according to ASC-9005-PCS-00, SAP Development Standards.

The GIS-generated response is sent based on the trading partner agreement.

6.3 MAP Editor

Map creation and map updates are the responsibility of the EDI System Administrator/Developer in coordination with the EDI/EC Business/System Analyst. However, with the appropriate training, the EDI/EC Business/Systems Analyst may have access to make required changes to an existing map following the appropriate business procedures.

To update a map in the Map Editor:

- 6.3.1 Check the map out and select the appropriate check boxes to maintain the lock on the map in Lock Manager.
- 6.3.2 Make the needed updates.
- 6.3.3 Check in the new version to release the lock and make it available to GIS.

6.4 Reports

Standard reports are generated from the GIS Community Manager.

AdHoc reports require coordinating with the EDI/EC System Administrator/Developer.

6.5 System Monitoring for daily business functions (Inbound and Outbound Transactions)

GIS enables system monitoring through the Active Business Processing screen, which tracks a document through its life cycle. Document status information can be obtained at any point in the document's life cycle from the time the document arrives in GIS until processing is complete or the document exits the system. Errors are routed by email to the GISadmin email group.

The GIS administrator is responsible for assigning authorized functions to individual users that reflect their job duties and follow Amgen standard security policies for user accounts. The following accounts are required:

- svc-GISadmin account for GIS server maintenance
- GISadmin account for the administration of GIS email notification using smtp.amgen.com
- GISadmin account for ERP communication, used for SAPJCO adaptor
- GISadmin account for the SQL Server database non privileged account

6.6 Change Management

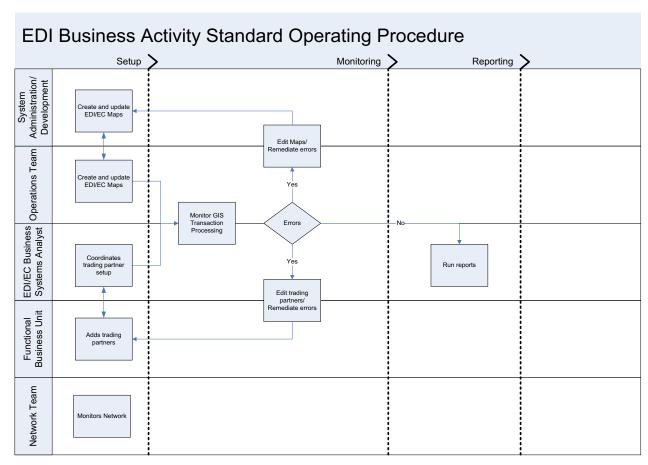
The Global ERP Change Control process governs all GIS-related system changes in the validated environment noted in ISCM 00038, Change Control Process. These changes include administrative, application, configuration, data fix, hardware, and software. The changes are recorded in the applicable change management system.

Prior to deployment, administrative changes are routed through Change Management. After deployment the administration of GIS by GISadmin is part of the SOP and considered routine changes.

Daily business tasks that do not required the ERP Global Change Control process:

- Trading Partner Setup
- Inactivate a trading partner
- Map updates that do not require development support
- Creating new maps that do not require development support
- Producing standard reports from the GIS Community Manager
- Updating or adding cross reference tables

APPENDIX 1 EDI Business Activity



DOCUMENT HISTORY

Change	Justification
1. 2.0 Scope—additional sites added	Revised to accurately reflect the scope of the document
2. 3.0 Roles and Responsibilities—modified	Revised to reflect current practices
3. 5.3 Abbreviations—added	Per template update
4. 6.2 Transaction Processing changed to GIS Transaction Processing	Revised to accurately reflect the newest procedure
5. 6.6 Change Management—added	Added to accurately reflect the current practice