Connection Requirements Specification

GEC Hub
Connection Requirements Specification

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<tr>
<td>0.0</td>
<td>06/11/2001</td>
<td>Gordon Draper</td>
<td>Draft Release</td>
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<td>1.0</td>
<td>02/27/2002</td>
<td>Steve Novotny</td>
<td>WAM Section Addition</td>
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<td>06/19/2002</td>
<td>Gordon Draper</td>
<td>2.3 WAM implementation user profile added</td>
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<td>09/19/2003</td>
<td>Gordon Draper</td>
<td>ANX links and connectivity form information updated. Section 2.3.2 updated tokens no longer required.</td>
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<td>1.5</td>
<td>08/18/2004</td>
<td>Kathie Jahn</td>
<td>Revised 2.1.5 – 2.1.13 with update ANX Tunnelz information, updated VAN Flow, Added COVISINT to the list of vans.</td>
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<td>1.6</td>
<td>05/15/2007</td>
<td>Michael Janeczko</td>
<td>Removed names, removed links to pages down a URL tree, adjusted spacing.</td>
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<td>06/03/2009</td>
<td>Amy Fei</td>
<td>Remove IBM Advantis from VAN Connectivity Method</td>
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<td>1.8</td>
<td>06/03/2009</td>
<td>Amy Fei</td>
<td>Correct the VAN connectivity list</td>
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<tr>
<td>2.0</td>
<td>11/09/2017</td>
<td>Sue Pare</td>
<td>Remove references to WAM, Added PI VPN</td>
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</table>

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1. General

1.1 Introduction

This document addresses the setup requirements for new trading partners / vendors with no previous Electronic Data Interchange (EDI) traffic with the Ford Motor Company. The EDI application and translation exist entirely on the Global Electronic Commerce (GEC) Hub. In particular, the document addresses connectivity requirements for EDI by using an Advanced Network Exchange (ANX) connection, a Value Added Network (VAN) connection, or a Public Internet VPN connection.

1.1.1 ANX Connectivity Method

The first method of connecting to the Ford GEC Hub requires an ANX connection for EDI data transfers. Understanding the various ANX service requirements is key to the successful implementation of EDI. The services are as follows:

- ANX Service Provider (required)
- IPSEC Security Service Provider (optional)
- ANX Overseer Group (required)

The ANX Service Provider is responsible for providing the ANX circuit and router. Estimate approximately 60 days to get an ANX circuit installed once the circuit is ordered. Add an additional week for some of the post circuit installation implementation steps. This will include filling out and returning to Ford representatives some required documents for establishing a secure tunnel. There are several ANX Certified Service Providers (CSP's). The list of CSP's includes MCI, AT&T, Ameritech, Ideal Technology Solutions, BCE Emergis, Equant Network Services, and Global Crossing. Please reference the http://www.anx.com website for a list of CSPs. These providers typically charge a one-time installation service fee and a monthly ANX service fee w/access. Fees vary by provider. Please check with the CSPs for pricing information.

The IPSEC Security Service Provider is responsible for providing additional hardware (if required), software and services for firewall and IPSEC security management. This service is only required if you chose to out-source this operation. The service provider typically charges a one-time IPSEC product installation fee and a monthly IPSEC service fee. Please check with your ANX Service Provider for details.

The ANX Overseer Group is responsible for enforcing the Service Level Agreement (SLA) and uptime requirements (99.965% network availability) of the ANX network. As a result, trading partners must pay a one-time fee along with an annual fee. Please reference the http://www.anx.com website for pricing details.

1.1.2 VAN Connectivity Method

The second method of connecting to the Ford GEC Hub requires the use of a VAN connection for EDI data transfers. The VAN provides services that are similar to that of an ANX Service Provider and must be registered by the Ford Motor Company. The current list of registered VAN's is as follows:

1.) EasyLink
2.) EEBridge/OpenText
3.) Sterling Commerce
4.) Kleinschmidt
5.) COVISINT
6.) iConnect
7.) INOVIS/HARBINGER

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8.) EDS*Elit
9.) LeadTec/SPS Commerce
10.) EuroFTP
11.) Dinet

For more information on registered VAN’s, reference the website http://web.gsec.ford.com. Please consult your VAN for details.

1.1.3 PI VPN Connectivity Method

The second method of connecting to the Ford GEC Hub requires the use of a PI VPN connection for EDI data transfers.

To establish a Public Internet VPN tunnel with Ford, the following assumptions must be understood by the Trading Partner:

1. Trading Partner understands that the Public Internet VPN solution uses the Public Internet as the transport network. There is no SLA covering performance, availability or access. It is the Trading Partner’s responsibility to provide Public Internet access, monitoring and support to protect against transport network problems.

2. Trading Partner must already have a high-speed Public Internet connection

3. Trading Partner must have publicly routable IP address space. Requests with private / RFC1918 addressing will not be accepted.

4. Trading Partner must have the expertise necessary to configure and bring the tunnel up on their end.

5. Ford has significant experience with Checkpoint and Cisco IPSec devices. To establish a successful tunnel, it is recommended that an IPSec compatible devices which supports site to site tunnels using Public IP Addresses be used: This includes: Checkpoint Firewall-1 (version 4.1 or higher), Cisco ASA firewall, Cisco PIX firewall or Cisco IOS. There is no guarantee that any other IPSec device will work properly. Ultimately, the Trading Partner is responsible for configuring and troubleshooting the IPSec device at their end of the connection.

6. This connection is strictly for Gateway-Gateway VPN’s. We do not allow client VPN connections.

2. Setup and Connection Requirements

This section of the document outlines the best practices used to setup a trading partner with Ford Motor Company via EDI.

2.1 ANX Implementation

To implement an ANX connection, complete sections 2.1.1 through 2.1.9.

2.1.1 ANX Vendor Selection

It is up to the trading partner to select their service provider. See the ANX Website http://www.anx.com/ for a current list of ANX CSP’s. Trading partners are encouraged to obtain multiple quotes before making a decision. The selection and how it occurs is completely determined by the trading partner. The CSP can help the trading partner determine the amount of bandwidth required for the connection. The adding partner must determine the...
bandwidth before the ANX registration process can be completed.

Trading Partner Action Item – Determine bandwidth requirements and select ANX Certified Service Provider

2.1.2 IPSEC Vendor Selection

The ANX Service Providers can recommend IPSEC vendors, if your staff needs assistance with this task. The IPSEC vendor addresses firewall administration, security, and encryption.

Trading Partner Trading Partner Action Item – Select IPSEC Vendor, if required

2.1.3 Customer Registration with the ANX Overseer

The Trading Partner will need to register with the ANX as an ANX Trading Partner. Online registration is available through the ANX web site at http://www.anx.com/. The ANX registration form will require the Trading Partner to indicate the connection size and (bandwidth) needed. Once the registration paperwork has been submitted to and processed by the ANX, a trading partner number will be assigned to the Trading Partner. The processing of paperwork and assignment of trading partner number takes a minimum of 10 business days.

Trading Partner Action Item – Register with ANX

2.1.4 Customer Contract with ANX Certified Service Provider

Since legal issues sometimes need to be resolved between the Trading Partner and the service provider, the signing of an actual contract can sometimes become a bottleneck. The customer must have registered with ANX and must have been assigned a trading partner number before a service provider will process an order.

Trading Partner Action Item – Sign CSP contract

2.1.5 Request Tunnel with Ford for ANX

Once the Trading Partner is fully connected to the ANX network, the Trading Partner should access the GSEC external website and submit one of the following forms indicated on:


Assumptions for Internet VPN Users:

1) Trading Partner must already have high-speed internet connection
2) Trading Partner must have the expertise necessary to configure and bring the tunnel up on their end.
3) The only IPSec devices supported by Ford are the Checkpoint Firewall-1 (version 4.1 or higher), Cisco PIX firewall or Cisco IOS. Should any other products be selected, the Trading Partner will have the sole responsibility of establishing the tunnel including troubleshooting connectivity problems.
4) This connection is strictly for Gateway-Gateway VPN’s. We do not allow client VPN connections.

This process created a secure tunnel to Ford's Firewall. A tunnel is an encrypted, authenticated communications path into the Ford Network. Ford and the Trading Partner then exchange a token data packet (between the Firewalls) to enable the secured tunnel. When Ford has completed the tunnel request, Ford will send an acknowledgement to the technical contact listed on the form.

Trading Partner Action Item – Submit appropriate tunnel request form

2.1.6 Submit Ford EDI Connection Request Form

Once the Trading Partner is fully connected to the ANX network, the Trading Partner should access the GSEC...
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the Ford system is a PAH. If it is not already a PAH, it must meet the PAH requirements and be submitted as a PAH to the appropriate group.

2.1.9.2 Firewall rules at vendor site
Ford will supply the Trading Partner or IPSEC vendor with the necessary IP addresses.

2.1.9.3 Static routes added to Ford router
If necessary, static routes are configured on either or both sides of the connection.

2.1.10 ANX Work Plan

<table>
<thead>
<tr>
<th>Task Id</th>
<th>Task</th>
<th>Responsible Organization</th>
<th>Prerequisite Task</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Select ANX Certified Service Provider (please reference section 2.1.1 for detail)</td>
<td>Trading Partner</td>
<td>N/A</td>
<td>Variable</td>
</tr>
<tr>
<td>2</td>
<td>Identify bandwidth requirements (please reference section 2.1.1 for detail)</td>
<td>Trading Partner in conjunction with the Certified Service Provider</td>
<td>N/A</td>
<td>Variable</td>
</tr>
<tr>
<td>3</td>
<td>Complete ANX Registration Form and submit to ANX (please reference section 2.1.3 for detail)</td>
<td>Trading Partner</td>
<td>1</td>
<td>1 business day</td>
</tr>
<tr>
<td>4</td>
<td>Negotiate contractual issues (please reference section 2.1.4 for detail)</td>
<td>Trading Partner in conjunction with the Certified Service Provider</td>
<td>N/A</td>
<td>Variable</td>
</tr>
<tr>
<td>5</td>
<td>Receive Trading Partner ID from ANX (please reference section 2.1.3 for detail)</td>
<td>Trading Partner</td>
<td>3</td>
<td>7 to 10 business days</td>
</tr>
<tr>
<td>6</td>
<td>Submit order for ANX connectivity through CSP (please reference section 2.1.4 for detail)</td>
<td>Trading Partner</td>
<td>3,4</td>
<td>1 business day</td>
</tr>
<tr>
<td>7</td>
<td>Select IPSEC solution (please reference section 2.1.2 for detail)</td>
<td>Trading Partner in conjunction with the Certified Service Provider</td>
<td>1</td>
<td>Variable</td>
</tr>
<tr>
<td>8</td>
<td>ANX connectivity configuration</td>
<td>Certified Service Provider</td>
<td>4</td>
<td>20 – 40 business days</td>
</tr>
<tr>
<td>9</td>
<td>Fully Subscribed: Full ANX network connectivity installed at Trading Partner site (including IPSEC gateway). Test tunnel to ANX established and working. All dedicated ANX customers will need to sign up for ANXtunnelz Service through <a href="http://www.anx.com">www.anx.com</a></td>
<td>Certified Service Provider</td>
<td>4,5,8</td>
<td>1 business day</td>
</tr>
</tbody>
</table>
2.2 VAN Implementation

To implement a VAN connection, complete sections 2.2.1 through 2.2.7.

2.2.1 VAN Vendor Selection

The Trading Partner will have to select a Ford approved VAN.

Trading Partner Action Items – Select Ford approved VAN

2.2.2 VAN Mailbox Setup

The VAN will create an account and/or mailbox ID(s) and setup Trade relationships with Trading Partner.

Trading Partner Action Items – Check status of VAN account

2.2.3 VAN Confirmation and Connectivity Test

Trading Partner verifies confirmation of mailbox setup with VAN and begins connectivity testing with VAN.

Trading Partner Action Items – Verify mailbox setup and begin testing

2.2.4 Submit Ford EDI Connection Request Form

Once the Trading Partner is fully connected to the VAN network, the Trading Partner should access the GSEC...
external website and submit a "Ford EDI Connection Request " form via the following URL:

https://web.gsec.ford.com/GEC/mailboxrequest/requesthome.asp

The submission will be acknowledged via email back to the EDI analyst named on the form. These requests are processed in sequential order. A Ford EDI Analyst will contact the Trading Partner within 1-8 business days. At this time the Trading Partner will be expected to begin the testing process (send/receive of data across this connection).

The form should contain the following key information:

- Company Name
- VAN Information
- Ford Supplier Mailbox Codes

Trading Partner Action Items – Submit "Ford EDI Connection Request " form

Trading Partner Action Items – Check status of VAN account and trading partner (i.e. – Ford)

2.2.5 GSDB Code

See section 2.1.7 for GSDB Code.

Trading Partner Action Item – Validate GSDB Code

2.2.6 Testing

Be sure to test the following:

- Connectivity test to the VAN Network
- Complete system test

Trading Partner Action Items - Perform connectivity test to the VAN Network and Complete system test

2.2.7 Typical Questions to Ask Your VAN

Listed below are some typical questions in selecting a VAN

Do you impose a sign up fee?
What is your monthly service fee?
What is your fee per mailbox?
What is your per character or volume fee?
What is your thru-put capability?

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2.2.8 VAN Work Plan

<table>
<thead>
<tr>
<th>Task Id</th>
<th>Task</th>
<th>Responsible Organization</th>
<th>Prerequisite Task</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Select Ford Approved VAN</td>
<td>Trading Partner</td>
<td>N/A</td>
<td>Variable</td>
</tr>
<tr>
<td>2</td>
<td>Request an account and/or mailbox ID(s) from the VAN</td>
<td>Trading Partner in conjunction with VAN</td>
<td>1</td>
<td>Variable</td>
</tr>
<tr>
<td>3</td>
<td>Create account and/or mailbox ID's and setup Trade relationships</td>
<td>VAN in conjunction with Ford</td>
<td>1,2</td>
<td>Variable</td>
</tr>
<tr>
<td>4</td>
<td>Send appropriate confirmations to Trading Partner</td>
<td>VAN</td>
<td>3</td>
<td>Variable</td>
</tr>
<tr>
<td>5</td>
<td>Trading Partner verifies confirmations and conducts connectivity test</td>
<td>Trading Partner in conjunction with VAN</td>
<td>4</td>
<td>Variable</td>
</tr>
<tr>
<td>6</td>
<td>The &quot;EDI Connection Request &quot; form is submitted on <a href="https://web.gsec.ford.com/GEC/mailboxrequest/requesthome.asp">https://web.gsec.ford.com/GEC/mailboxrequest/requesthome.asp</a></td>
<td>Trading Partner</td>
<td>6</td>
<td>1 business day</td>
</tr>
<tr>
<td>7</td>
<td>Assign an analyst to test the EDI Connection (please reference section 2.2.4 for detail)</td>
<td>Ford</td>
<td>7</td>
<td>Variable</td>
</tr>
<tr>
<td>8</td>
<td>Test date notification</td>
<td>Ford</td>
<td>9</td>
<td>Variable</td>
</tr>
</tbody>
</table>

Note – The above work plan takes on average 10-15 business days to complete.

2.3 PI VPN Implementation

To implement a PI VPN connection, complete sections 2.3.1 through 2.3.4.

2.3.1 Request Tunnel with Ford for PI VPN

All tunnel requests must be initiated by the Ford Business Sponsor on behalf of trading partners. If you are a trading partner seeking connectivity with Ford, contact your Ford Business Sponsor, ask them to go to www.request.ford.com (link requires access to the Ford Intranet) and submit a request for Trading Partner Connectivity. Without this request, no tunnel requests will be fulfilled.

More information can be found at https://www.suppcomm.ford.com/us/newtunnelproc.asp

Assumptions for Internet VPN Users:
- Trading Partner must already have high-speed internet connection
- Trading Partner must have the expertise necessary to configure and bring the tunnel up on their end.
- The only IPSec devices supported by Ford are the Checkpoint Firewall-1 (version 4.1 or higher), Cisco PIX firewall or Cisco IOS. Should any other products be selected, the Trading Partner will have the sole responsibility of establishing the tunnel including troubleshooting connectivity problems.
- This connection is strictly for Gateway-Gateway VPN's. We do not allow client VPN connections.

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This process created a secure tunnel to Ford’s Firewall. A tunnel is an encrypted, authenticated communications path into the Ford Network. Ford and the Trading Partner then exchange a token data packet (between the Firewalls) to enable the secured tunnel. When Ford has completed the tunnel request, Ford will send an acknowledgement to the technical contact listed on the form.

2.3.2 Submit Ford EDI Connection Request Form

Once the Trading Partner is fully connected to the Ford network, the Trading Partner should access the GSEC external website and submit a "Ford EDI Connection Request " form via the following URL:

https://web.gsec.ford.com/GEC/mailboxrequest/requesthome.asp

The submission will be acknowledged via email back to the EDI analyst named on the form. These requests are processed in sequential order. A Ford EDI Analyst will contact the Trading Partner within 1-8 business days. At this time the Trading Partner will be expected to begin the testing process (send/receive of data across this connection).

The form should contain the following key information:
- Company Name
- VAN Information
- Ford Supplier Mailbox Codes

Trading Partner Action Items – Submit "Ford EDI Connection Request " form

2.3.3 GSDB Code

See section 2.1.7 for GSDB Code.

Trading Partner Action Item – Validate GSDB Code

2.3.4 Testing

Be sure to test the following:
- Connectivity test to the Ford Network
- Complete system test

Trading Partner Action Items - Perform connectivity test to the Ford Network and Complete system test

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## 2.3.5 PI VPN Work Plan

<table>
<thead>
<tr>
<th>Task Id</th>
<th>Task</th>
<th>Responsible Organization</th>
<th>Prerequisite Task</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Submit <a href="#">Request Center ticket</a> for Trading Partner Connectivity.</td>
<td>Ford business Sponsor</td>
<td>N/A</td>
<td>Variable</td>
</tr>
<tr>
<td>2</td>
<td>Request Trading Partner to fill out the Partner Connectivity form</td>
<td>Ford GSEC team</td>
<td>1</td>
<td>Variable</td>
</tr>
<tr>
<td>3</td>
<td>Complete <a href="#">Partner connectivity form</a> Please have your firewall or network administrator fill this form out.</td>
<td>Trading partner</td>
<td>1,2</td>
<td>Variable</td>
</tr>
<tr>
<td>4</td>
<td>Submit necessary requests to establish VPN connection and firewall rules. This could take up to 21 business days to complete.</td>
<td>Ford GSEC Team</td>
<td>3</td>
<td>Variable</td>
</tr>
<tr>
<td>5</td>
<td>Contact the Trading Partner with the necessary parameters to configure their firewall/router. It is the Trading Partner's responsibility to configure any network devices on their end.</td>
<td>Trading Partner in conjunction with Ford</td>
<td>4</td>
<td>Variable</td>
</tr>
<tr>
<td>6</td>
<td>The &quot;EDI Connection Request &quot; form is submitted on <a href="https://web.gsec.ford.com/GEC/mailboxrequest/requesthome.asp">https://web.gsec.ford.com/GEC/mailboxrequest/requesthome.asp</a></td>
<td>Trading Partner</td>
<td>6</td>
<td>1 business day</td>
</tr>
<tr>
<td>7</td>
<td>Assign an analyst to the test the EDI Connection (please reference section 2.2.4 for detail)</td>
<td>Ford</td>
<td>7</td>
<td>Variable</td>
</tr>
<tr>
<td>8</td>
<td>Test date notification</td>
<td>Ford</td>
<td>9</td>
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