

**PIP 4A1 VERSION 02.00: Notify of Strategic Forecast**  
**RELEASE 1.00**

**Intended for Intel Supplier Trading Partners**

Intel Corporation

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## INTRODUCTION

### PURPOSE

This document is intended to provide to Intel Suppliers (Trading Partners) the information necessary to begin implementing RosettaNet PIP 4A1, version 2.0, (Notify of Strategic Forecast) with Intel. The topics covered are:

[INTRODUCTION](#) provides the reader with a basic understanding of the PIP implementation  
[IMPLEMENTATION](#) is a complete outline of the process to be followed to put the document in production  
[TESTING](#) describes testing procedures and scenarios specific to this PIP  
[PRODUCTION](#) describes how to migrate from a test to a production environment and the support to follow  
[FREQUENTLY ASKED QUESTIONS](#) provides answers to some common questions regarding this PIP  
[GLOSSARY OF TERMS](#) defines terms that are specific to this PIP

### AUDIENCE

This document is intended for suppliers and Rosettanet provisioners. It contains many hyperlinks, data mappings with required fields and is best viewed in soft form. If you are reading a hard copy of this document, then please print this document on a color printer to better view the message guideline section.

### BENEFITS

Some specific benefits of implementing PIP 4A1 for Intel and the Trading Partner include:

- Reduces time spent calling and sending emails to inform the trading partner of Intel material requirements
- Improves efficiency, increases data integrity and provides better visibility for tracking purposes
- Allows Intel to have touchless transactions for forecasts

### INTEL KEY CONTACTS

For each implementation, Intel assigns the following roles to participate in the engagement:

**TRADING PARTNER PROVISIONERS** – They assist the technical part of the implementation where they manage the implementation process between the supplier and Intel.

**PIP DEVELOPMENT TEAM** – The Intel technical developers responsible for the developing the PIP for Intel. They provide answers regarding PIP specifics and facilitate testing and migration to production.

**BUSINESS ADVOCATE/BUYER/COMMODITY MANAGER** – To represent the business processes involved in this PIP and to provide user acceptance to data sent and received.

It is highly recommended that the trading partner have complimentary representatives available to support this implementation, as well.

### TECHNICAL REQUIREMENTS

The following RosettaNet Infrastructure for transaction processing will be used for the 4A1 PIP:

RNIF	Version 1.1	Version 2.0
Preamble	Version 1.1 Build# 22	V02_00_01
Service Header	Version 1.1 Build# 22	V02_00_01
Delivery Header	Not used	V02_00_01
Receipt Acknowledgement	Version 1.1 Build# 22	Not used

Receipt Ack Exception	Version 1.1 Build# 22	Not used
General Exception	Version 1.1 Build# 22	Not used
Acknowledgement of Receipt	Not used	V02_00_01
Exception	Not used	V02_00_01
PIP0A1	Version 1.0 Build# 9	V02.00.01

## PROCESSING REQUIREMENTS

### ERROR PROCESSING

There are several areas where errors could potentially occur. Some of them are listed below.

#### *Error at Intel Gateway (Public Process)*

If the 4A1 fails in Intel's B2B gateway, Intel Production Support group will send the Trading Partner a failure notice. Intel will investigate the cause of error; take action for eliminating re-occurrence of the error, and reply with a reconciliation request to the trading partner, such as a PIP re-send.

#### *Error on the Trading Partner's End*

The Trading Partner should monitor their systems in a timely manner to proactively find errors. If an error is found and any support is needed by Intel, the Trading Partner should communicate this with Intel's Production Support group.

#### *Intel contact*

Intel's Production Support group is located in the United States and Malaysia, and support is available 24 hours per day, 7 days per week. They can be reached via Phone or e-mail.

Use the toll free# for your country as listed here: <https://supplier2.intel.com/static/misc/support.htm>.

OR E-mail the support desk at:

[Amr.rnet@intel.com](mailto:Amr.rnet@intel.com) (group located in the United States)  
[Gar.rney@intel.com](mailto:Gar.rney@intel.com) (group located in Malaysia)

### SERVICE LEVEL AGREEMENT (PERFORMANCE TIME REQUIREMENTS)

PIP 4A1 follows a single-action activity (asynchronous) process. There are no time requirements for sending a 4A1 except for those dictated by the business process.

Current business process rules dictate that Notify Strategic Forecast 4A1 can be sent as the origin of the forecast exchange communication (PRF) or as a confirmation after receipt of a Notify Forecast Reply PIP 4A5.

After the shipper (Intel) sends PIP 4A1 to the trading partner, the trading partner will send a Receipt Acknowledgement or a General Acceptance back to the Intel. Assuming the shipper strictly follows framework and PIP 4A1 specifications; the shipper processes the Receipt Acknowledgement or a General Acceptance as soon as it is received.

The DTDs for the Receipt Acknowledgment can be found at [www.rosettanet.org](http://www.rosettanet.org).

## RELATED DOCUMENTS

Intel provides documents to assist trading partners in establishing connectivity with Intel. For trading partners who prefer not to use the connectivity package provided free of charge by Intel, they should reference the

following (most are available on <https://supplier2.intel.com/supplierhub/> or through your Trading Partner Provisioner):

NAME	DOCUMENT DESCRIPTION
HTTPS Trading Partner Guidelines Revision	HTTPS Implementation Guide
HTTPS Trading Partner Information Sheet (it is also embedded with the HTTPS Implementation Guide)	HTTPS Data Exchange Sheet with specific information the Trading Partner needs from Intel and the information Intel needs from its Trading Partners to establish connectivity

## IMPLEMENTATION

### WHERE TO FIND PIPS

For a list of PIPs by cluster and segment and/or to download a copy of PIP 4A1, please access the RosettaNet web site at <http://www.rosettanet.org>. Users are not required to be a member of RosettaNet or have an ID/password to download the PIPs.

### MESSAGE GUIDELINES

Intel is currently implementing 4A1\_MG\_V02\_00\_00\_StrategicForecastNotification (12/16/2002 11:28:29 AM)

Data elements **required** by RosettaNet are indicated in green, those with a **conditional requirement** appear in yellow and the rest are optional. Please see the Excel mapping document in the zip file.

### PIP MAPPING



ForecastFromIntelMapping-4A1-4A3.xls

### SYSTEMS MANUFACTURING SAMPLE 4A1

The following is an example of the type of XML **Notify of Strategic Forecast** that Intel would expect to receive from its trading partners. If you would prefer an Excel version of this section, please ask your Trading Partner Provisioner.



4A1-SM.xml

### COMPONENTS MANUFACTURING SAMPLE 4A1

The following is an example of the type of XML **Notify of Strategic Forecast** that Intel would expect to receive from its trading partners. If you would prefer an Excel version of this section, please ask your Trading Partner Provisioner.

**Insert Sample here**

### RECEIPT ACKNOWLEDGEMENT

The trading partner will send Intel a receipt acknowledging that a **Notify Strategic Forecast** was successfully received.

## TESTING

### PURPOSE

Testing for Intel PIP follows the stages listed below:

<b>Level 1</b>	Establish transport and connectivity with Trading Partners using HTTPS. This is a test of each Trading Partner's public processes. <u>These tests are defined in the connectivity guides for each associated method.</u>
<b>Level 2</b>	This stage tests the RosettaNet PIP structure and syntax. Within each Trading Partner's public process, testing is done to ensure the document is well formed and valid against the DTD. <u>These tests are defined in the connectivity guides for each associated method.</u>
<b>Level 3</b>	This is a real-time, end-to-end integration test against Intel's ERP system. This will be a test of the private process for both Trading Partners.

### TEST SCENARIOS

Please see the Excel document 'ForecastPIPsTest Scenarios' in the zip file for specific test scenarios. The Intel Trading partner provisioner will work with you to develop any other required test scenarios.

[Insert test scenarios here](#)

## PRODUCTION

### READINESS

Once the user acceptance testing is completed, we would ask that you please follow the procedure below for a successful migration to production:

1. If you are using HTTPS, please ensure your B2B gateway is utilizing Intel's production URL and verify it with the Trading Partner Provisioner.
2. If you are using HTTPS, send the Trading Partner Provisioner the supplier Trading Partner's production URL, Digital Certificate and Digital Signature if these are different from what was provided in the HTTPS information sheet for testing.
3. Establish a "go live" date when processing can begin in Intel's production environment.
4. When notification is received from Intel, please receive a **Notify Strategic Forecast** transaction to validate connectivity in the production environment.
5. Intel will verify connectivity was established in production and when to begin sending transactions.

### SUPPORT

Any issues related to this implementation should be directed to your assigned Trading Partner Provisioner.

## FREQUENTLY ASKED QUESTIONS

### Q 1 *What fields/buckets can be altered by the Supplier/Subcon Trading partner?*

Jagathi to add

### Q 2 *What are the most common errors seen in testing this transaction?*

Below is a list of common errors that were encountered during testing: Add during testing

- Schema Validation Errors: Description of Error
- Response does not match up to a Forecast: Description of Error
- Mapping Questions: Description of Error

### Q 3 *What is being sent as forecast in a 4A1?*

A forecast is a schedule of Intel's required units for a given item or Supplier Capacity Grouping. A 4A1 PIP is Intel's request to the trading partner to assess its capability (capacity + materials) to fulfill a particular schedule for a group of products or Supplier Capacity Grouping.

### Q 4 *Why is necessary to send forecast?*

The goal of sending a Notify of Strategic Forecast is to put an automated process in place that gives the trading partner a forecast of Intel's demand for the products that they supply. Notify of Strategic Forecast's should help automate existing processes for both senders (Intel) and receivers (trading partner). Direct connection with supplier's systems to create touchless transactions is the key value for implementing e-Business solutions.

### Q 5 *How long will it take to prepare?*

The implementation process requires multiple weeks of preparation and testing. Refer to the implementation checklist in the Intel RosettaNet General Implementation Guide for estimated durations for each activity

### Q 6 *In the Systems Manufacturing process, we no longer call them PRF/DCR but only refer to them as Forecast. But, is it possible for a Product not to appear in a PRF but then later in DCR? In other words, is it possible to add new Products into the PIP4A1 during the week itself?*

PRF & DCR are just forecast. Therefore, each of them can have the same product, some products, or totally different products. The only reason we still want to maintain the term PRF and DCR is because they can have different SLA for the RTF response. PRF should take longer and DCR should be expedited.

### Q 7 *In the Systems Manufacturing process, Intel sends a PRF with 3 products (Prod1, Prod2, Prod3) at 8AM and later a DCR with one item (Prod1) at 10AM. When the trading partner returns PIP4A5 at 11AM and they provide the RTF for all 3 products of the PRF (8AM transmission), will all 3 products forecast fail to be loaded in Intel Systems OR just Prod1 that has a DCR?*

The only way the RTF transmission will fail to be loaded is if in the 4A5, Prod1 refers to a Forecast Rev # (PIP 4A1 line # 73) of the earlier 8am PRF

- Q 8** *In the Components Manufacturing process, Intel sends a forecast with 3 products (Prod1, Prod2, Prod3) at 8AM and later a new forecast with one item (Prod1) at 10AM. When the trading partner returns PIP4A5 at 11AM and they provide the RTF for all 3 products of the first forecast (8AM transmission), will all 3 products forecast fail to be loaded in Intel Systems OR just Prod1 that has a last forecast?*

The only way the RTF transmission will fail to be loaded is if in the 4A5, Prod1 refers to the Forecast Rev # (PIP 4A1 line # 73) of the earlier 8am forecast

- Q 9** *In the Systems Manufacturing process, should the trading partner combine the response to the PRF (Prod2, Prod3) and the DCR (Prod1) into a single PIP4A5 to Intel or should they respond to the DCR in a separate PIP4A5 as per PIP4A1?*

The trading partner can do several things. 1) Can send a single RTF for Prod1, Prod2, and Prod3 knowing that the Forecast Rev # should be the one of the last forecast transmitted; 2) Can send an RTF for Prod2 & Prod3 and another for Prod1; or 3) Can send 3 different RTF, one for Prod1, one for Prod2, and one for Prod3. The determination of which method should the trading partner chooses to respond will be dictated by the business rules that the Intel planning team determines appropriate

- Q 10** *In the Components Manufacturing process, should the trading partner combine the response to a forecast1 (Prod2, Prod3) and forecast2 (Prod1) into a single PIP4A5 to Intel or should they respond to the forecast2 in a separate PIP4A5 as per PIP4A1?*

The trading partner can do several things. 1) Can send a single RTF for Prod1, Prod2, and Prod3 knowing that the Forecast Rev # should be the one of the last forecast transmitted; 2) Can send an RTF for Prod2 & Prod3 and another for Prod1; or 3) Can send 3 different RTF, one for Prod1, one for Prod2, and one for Prod3. The determination of which method should the trading partner chooses to respond will be dictated by the business rules that the Intel planning team determines appropriate

- Q 11** *In PIP 4A1 field #19 **ProprietaryReferenceIdentifier**, will the ForecastID be unique for every PIP4A1 transmission even if the PRF is size is so big that the system split it into 2 PIP4A1 transmissions*

ForecastID will not be unique per each transmission; batches will share the same one to show that the forecast was split. The line #93 **thisDocumentIdentifier.ProprietaryDocumentIdentifier** will unique per transmission.

- Q 12** *In PIP 4A1 line #22 **isFinalForecast.AffirmationIndicator**, is it true the it is populated with a 'Yes' and denotes it is a Confirmation? And if it is populated with a 'No', then it denotes the PIP4A1 is just Forecast (PRF or DCR)?*

Tue

- Q 13** *In PIP 4A1 field #25 **GlobalPartnerReferenceTypeCode** ("Supplied-by", "Ship-to", and "Ship-From") can the PIP have multiple different Ship-To? Is it a PIP level or Product level?*

Yes, it can have several because it is at the product level. The forecast is at ship-to level. The relationship between **material:ship-to** is **1:n**.



**Q 14** *In PIP 4A1, field #63 **ProprietaryReferenceIdentifier**, is DocumentID the same as ForecastID?*

Yes. Document ID is a system generated number made of a date+time stamp

**Q 15** *In PIP 4A1 field #73 **revisionIdentifier.FreeFormText**, what is the formula for generating the 'Line Revision number? Is it at Material Level? This is for Asustek to understand our logic behind this field.*

LineRevision number is date + timestamp (YYYYMMDDHHMMSSSS) last 2 are milli seconds

**Q 16** *In PIP 4A1 field #80 **GlobalForecastIntervalCode**, will it always be defaulted to 'Week'?*

Yes for the Systems Manufacturing process

**Q 17** *In PIP 4A1 field #91 **RevisionNumber – Batch**, if a forecast is split into multiple batches we will have the batch number/total number of batches? What is the determining file size to have a PRF to be split into multiple PIP4A1?*

Maximum for 2MB, when we get to Level3 testing, we can give a more definite answer since we don't have enough data in development system to simulate.

**Q 18** *When there are multiple batches, the PIP4A1s will each be assigned with a different ForecastID or they share the same ForecastID?*

ForecastID will not be unique per transmissions; batches will share the same one to show that the forecast was split.

**Q 19** *When the trading partner responds with the RTF (PIP4A5), are they allow to combine their response on all the PIP 4A1 (multiple batch) into a single PIP4A5? Or must they do a PIP4A5 for each of the PIP4A1 they have received?*

They can combine

**Q 20** *In PIP 4A1 field #93 **thisDocumentIdentifier.ProprietaryDocumentIdentifier**, will the TrackingNumber be UNIQUE in PIP4A1 as the ProprietaryDocumentIdentifier is?*

Yes.

**Q 21** *In PIP 4A1 line #21 **GlobalForecastTypeCode** can have allowed values "Capacity" or "Planning", when would each be used*

The line GlobalForecastTypeCode is used to signal the trading partner what to include in the RTF response. If the line has "Planning", then the trading partner must respond in the 4A5 with RTF quantities only. If the line has "Capacity", the the response in the 4A5 must include two schedules for each product. The first would be for the RTF commits and the second for buffer capacity quantities. The Systems Manufacturing process requires that this line has "Planning" and the Components Manufacturing process requires that the line be populated with "Planning" or "Capacity"

## GLOSSARY OF TERMS

### -A-

### - B -

BCRN Business Connect / RosettaNet (Tibco software used by Intel)

### - D -

DTD Document Type Definition

DCR Demand Change Request is the exception process to send a new Notify Strategic Forecast 4A1 prior to receiving the Notify Forecast Reply 4A5

### -M-

MAR Materials Auto Replenishment

### - P -

PIP Partner Interface Process (PIP) is the RosettaNet model that depicts the activities, decisions and Partner Role interactions that fulfill an eBusiness transaction between two partners in a supply chain.

PRF Product Requirements Forecast

### - R -

RNIF RosettaNet Implementation Framework. The RNIF provides implementation guidelines for those who wish to create interoperable software application components that execute PIPs.

Response to Forecast

RTF

### - T -

Trading Partner Provisioner The technical implementation specialist Intel assigns to assist trading partners with a RosettaNet implementation

### -V-

## DOCUMENT

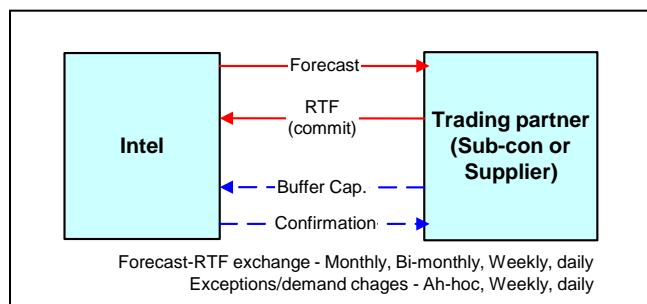
**GENERIC FORECAST & CAPACITY EXCHANGE PROCESS (4A1/5)**

RossettaNet based collaborative forecasting is a B2B method to exchange forecast data with trading partners. This is Intel's preferred method to exchange. Trading partners must be RossettaNet ready and must have developed an internal process to exchange forecast from their ERP system with Intel's ERP system. For the PRF-RTF the process will use PIP 4A1 and PIP 4A5.

Forecast exchange (commonly known at Intel as the PRF-RTF process) is the collaboration between Intel and trading partners to exchange forecast data of products that are supplied by sub-cons or suppliers. This communication is necessary to validate Intel's material requirements, which is needed to firm up the build plan and to provide an accurate statement of supply.

The process is initiated by Intel by creating a forecast schedule for materials that are needed from the sub-con/supplier. The forecast is sent to the trading partner to obtain the commit quantities that can be supplied.

The trading partner receives the forecast, evaluates its internal material and/or capacity availability, and determines whether or not has the capability to support the forecast. As a result, the sub-con/supplier responds to Intel by sending the RTF (Response-to-Forecast).



The RTF is the trading partner's commit schedule. Optionally, the response can include Buffer Capacity which is the additional units that can be supplied in each period of the planning horizon. Intel uses the response to finalize the build plan. In some cases, the process requires as an additional step that Intel sends the trading partner a confirmed forecast.

The forecast exchange frequency can be monthly, bi-monthly, weekly, or daily depending on the Business requirements specified in the Trading Partner Agreement (TPA).

To handle exceptions such as upsides or downsides in demand, or to simply make corrections to the forecast, Intel can initiate a new forecast exchange cycle by sending another forecast. These are demand change requests that are ad-hoc as frequent as weekly, daily, or hourly. The general understanding in the forecast exchange process is that Intel's requirement is the last forecast sent to the sub-con/supplier and that the trading partner's commit is the most recent response.

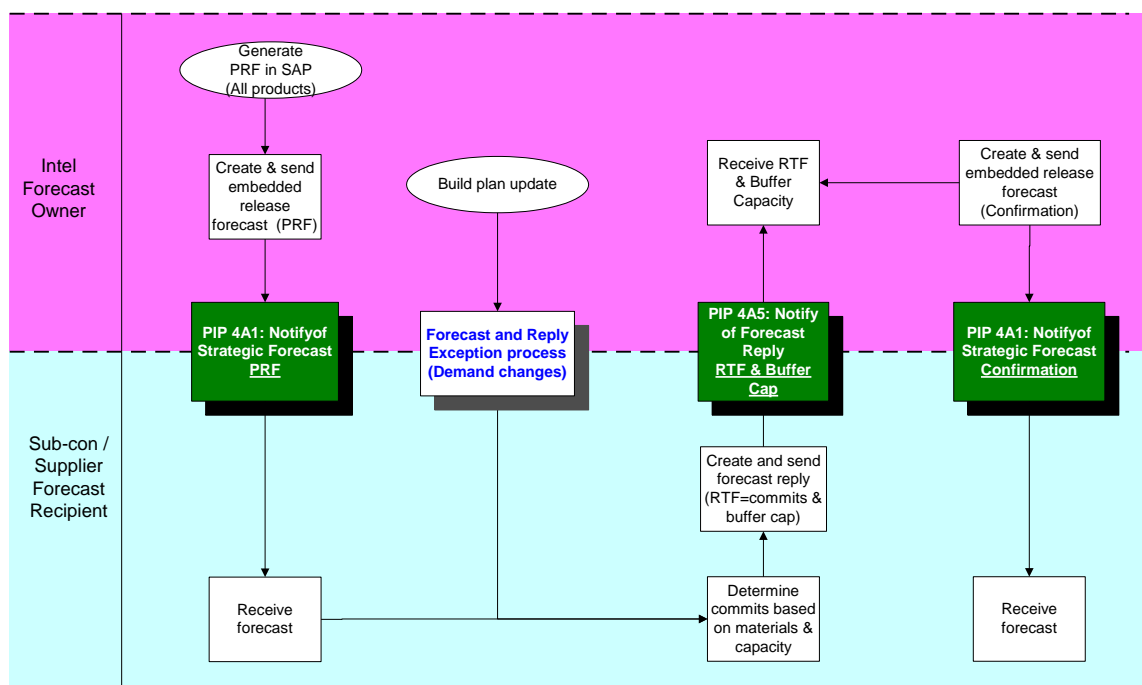
**CHARACTERISTICS OF THE FORECAST & CAPACITY EXCHANGE PROCESS**

Actors	<ul style="list-style-type: none"> <li>Forecast owner is Intel. Intel is the party sending the forecast and calculating material requirements.</li> <li>Forecast recipient is a sub-con or supplier (the party receiving the forecast and sending the forecast reply).</li> </ul>
Other processes used	<ul style="list-style-type: none"> <li>Demand Change Request (DCR)- Forecast and Reply Exception Process</li> </ul>
Preconditions	<p>The <u>Trading Partner Agreement (TPA)</u> must be negotiated between Intel and each forecast recipient as a precondition.</p> <p>The TPA should contain, but is not limited to, the following information:</p> <ul style="list-style-type: none"> <li>Define the meaning of forecast documents (4A1):             <ul style="list-style-type: none"> <li>PRF (all products),</li> <li>DCR (some products), and</li> <li>Confirmation</li> </ul> </li> </ul> <p>Definitions must include Intel liability on forecast and what the sub-con supplier must do with the forecast</p>

	<ul style="list-style-type: none"> <li>• Define the meaning of the forecast reply documents (4A5): <ul style="list-style-type: none"> <li>◦ RTF as a response to a PRF and</li> <li>◦ RTF as a response to a DCR.</li> <li>◦ Buffer capacity. Define what buffer capacity quantities for each time period represent</li> </ul> </li> <li>• Define <u>which products</u> are to be included in the Forecast and Forecast Reply</li> <li>• Describe a <u>procedure for adding products</u> to the Forecast and Forecast Reply</li> <li>• Describe a <u>procedure for removing products</u> from the Forecast and Forecast Reply</li> <li>• Define the Forecast and Forecast Reply <u>transmission frequency</u></li> <li>• Describe <u>quantity definitions and netting procedures</u> if needed, for example; using gross quantities versus net quantities</li> <li>• Describe <u>date definitions</u>, for example; using scheduled dock dates versus ship dates</li> <li>• Define Forecast and Forecast Reply <u>horizon</u></li> <li>• Define financial/legal liability (<u>trade off zone</u>)</li> <li>• Define <u>exception criteria</u> and exception management processes</li> </ul>
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## USE CASE - COURSE OF ACTION

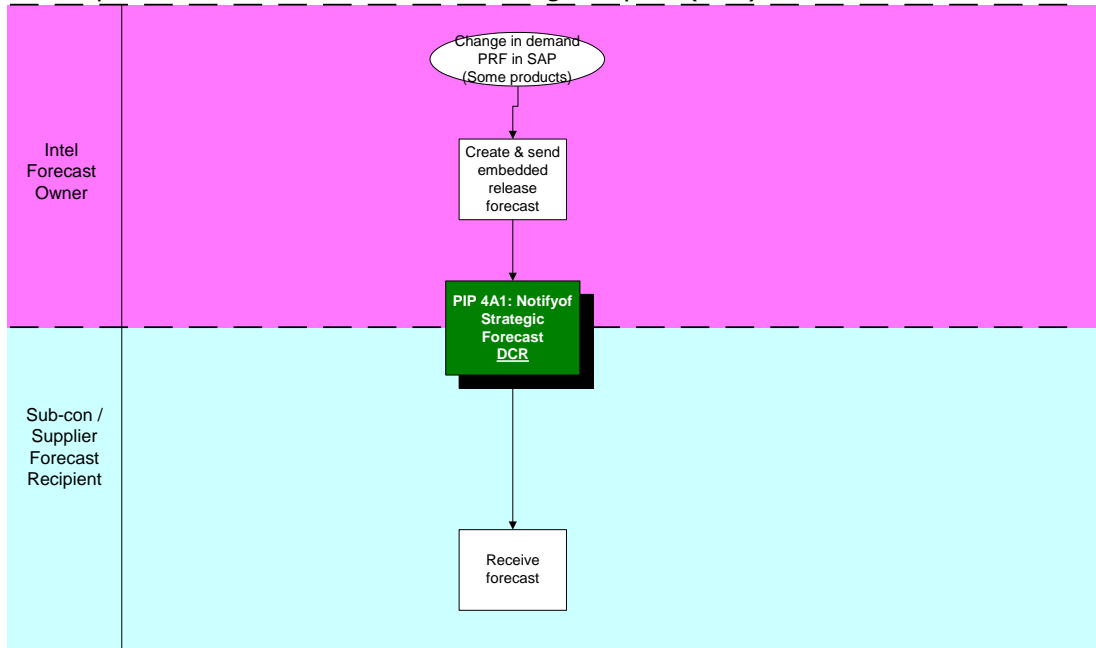
The following diagram describes the course of the business process for Forecast & Capacity Exchange.



- Intel creates a Notify of Strategic Forecast (PRF) with materials at the orderable level to the sub-con/supplier according to agreed schedule. Intel sends the forecast (PIP 4A1) to the trading partner and runs material simulation for the internal buyer (only for consigned materials). The Intel buyer will study consign material availability and inform results to both the Intel planner & trading partner
- Sub-con/supplier receives the forecast.
- Sub-con/supplier decides whether the forecast can be supported based on their own material and capacity analysis. The trading partner RTF response will need to incorporate the consign response from the internal buyer.
- In the cases where Intel demand changes or in exception situations, Intel creates new Notification of Strategic Forecast (PRF) and sends it to the sub-con/supplier. See Exception Process.
- Sub-con/supplier creates and sends a forecast reply on the projected available product quantity based on own capability. The response is always to the last forecast received. Forecast acceptance and commits and sub-con/supplier capability could be shared in a forecast reply using a single transmission (PIP 4A5)
- Intel receives the forecast reply.
- Intel uses the forecast reply to earlier recognize possible constraints in the expected flow of products or upside/downside potential. Intel uses this information to create subsequent forecast and forecast reply information to other trading partners in the supply chain.
- Optionally, Intel creates and sends a new strategic forecast notification as a confirmation for the sub-con/supplier(4A1)

**EXCEPTIONS USE CASE - COURSE OF ACTION**

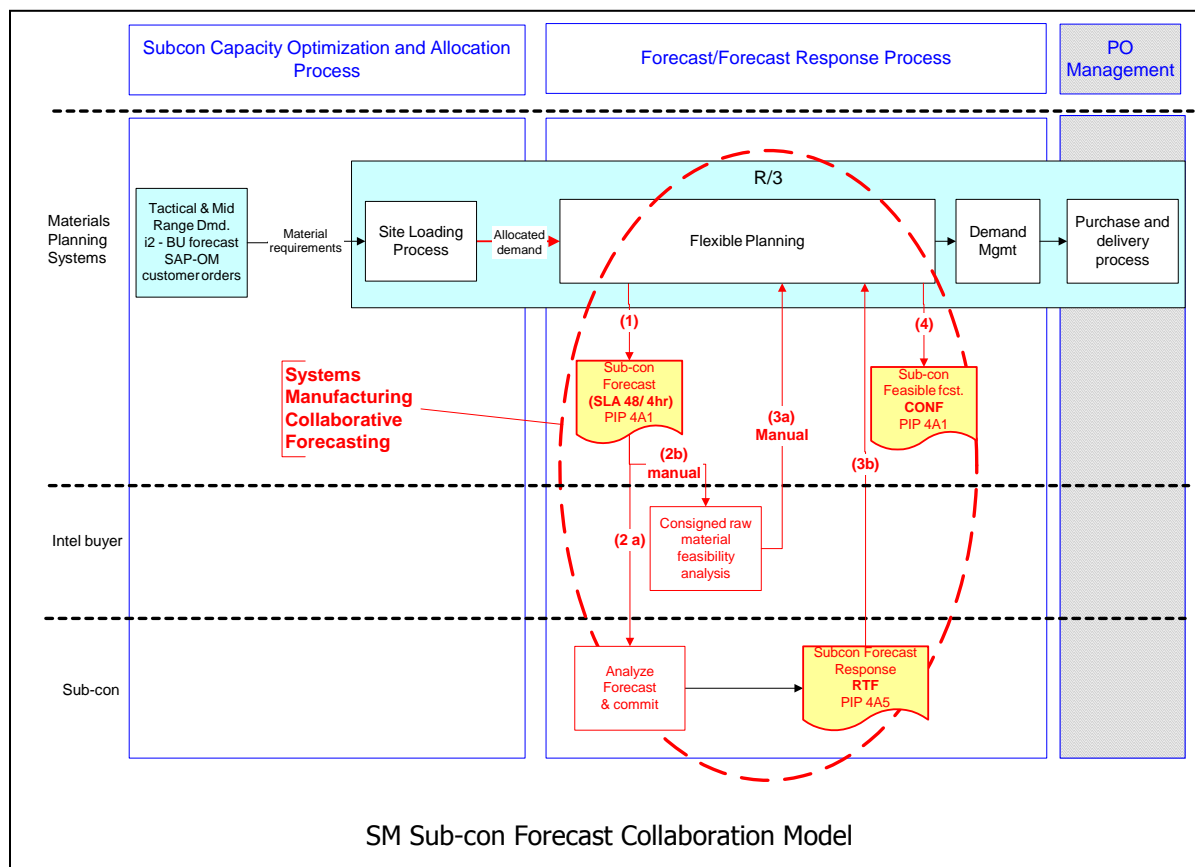
The following diagram describes the course of the business process for Forecast and Response-to-Forecast Exception Process known as Demand Change Request (DCR).



- Intel identifies a change in demand (exception outside agreed tolerance).
- Intel creates a strategic forecast notification (DCR=demand change request) with materials at the orderable level to the sub-con/supplier. Intel calculates material requirements based on the latest demand as-of a specific cut-off time and embeds the calculated requirements to the forecast. Intel and sub-con supplier may have agreed that only relevant changes to the previous forecast are communicated. Intel sends the forecast. (PIP4A1)
- Sub-con/supplier receives the forecast and overwrites any forecast previously received

## SYSTEMS MANUFACTURING FORECAST EXCHANGE PROCESS

### PROCESS OVERVIEW



In Intel Systems Manufacturing, forecast-RTF exchange is part of the master scheduling process which is done in R/3 Flexible Planning for products that are built by contract manufacturers (sub-cons).

The exchange occurs after the Intel planner determines the proposed build plan. The intent is to allow the Intel planner to adjust the build plan according to the sub-con's commit and in some cases Intel's ability to provide the sub-con with consigned materials.

The forecast-RTF exchange is initiated by two distinct business needs:

- Normal PRF-RTF process carried out once a week. This is an evaluation done on all the products where the sub-con response is expected in 24 or 48 hours.
- DCR process done ad-hoc during the week. This is an exception process motivated by a upside or downside in demand or by a correction of Intel's original forecast. The expectation is that the sub-con responds in less than a day (usually within 4 hours for an urgent DCR and 24 hours for a normal DCR). The DCR process can be done for a given product several times during the week.

## PRF-RTF PROCESS

1. With the proposed build plan figures, Intel creates and sends the forecast to the sub-con. This forecast represents Intel's request to the sub-con to assess its capability (capacity + materials) to fulfill a particular schedule.
2. The Forecast is sent.
  - a) Some of the products that are built by the sub-con use as components other Intel products known as consigned materials. If this is the case, Intel buyers are informed of the forecast to validate whether these consigned materials can be supplied to the sub-con.
  - b) The sub-con receives the forecast and performs capacity and raw material analysis.
3. The Response is received.
  - a) Intel buyers manually inform planners and sub con whether or not there will be enough consign materials to support the forecast schedule.
  - b) The sub-con performs material and capacity analysis to evaluate its capability to support Intel's forecast. Then responds with a commit schedule (RTF). The RTF assumes that Intel can provide the necessary consigned materials.
4. In the normal PRF-RTF process there is enough time for the sub-con to consolidate Intel buyer's response on the consigned material assessment. Therefore, the process requires only the exchange of forecast and RTF.  
 In the DCR process is a bit different. In here, the expectation is that the sub-con will respond very quickly. During this time, the sub-con does not always have enough time to consolidate the results of the consigned material evaluation from the Intel buyer. Therefore, after the RTF is received Intel needs to send a revised forecast (confirmation). This revised forecast represents the forecast that is feasible for Intel and the sub-con.

## DOCUMENT DEFINITIONS

- The forecast exchange process for Systems Manufacturing includes three types of documents:
  - Forecast sent from Intel to the sub-con. [PIP 4A1](#). It is Intel's request to the sub-con to assess its internal capability (capacity + materials) to fulfill a particular schedule. This request can be either a normal PRF request or demand change request (DCR). Forecast requires an RTF.
  - Response-to-forecast (or commit) sent by the sub-con to Intel. [PIP 4A5](#). It is the sub-con committed schedule after considering the consigned materials that are available.
  - Confirmation. [PIP 4A1](#). It is the revised forecast that Intel sends to the sub-con that is consigned material and sub-con capability feasible. Confirmations do not require RTF.
- The expected reply time for the RTF is known as the RTF service level agreement (SLA). The SLA is defined in hours and is specified in each forecast transmission.
  - Normally the RTF for a PRF is expected within 24 or 48 hours
  - Normally the RTF for a DCR is expected within 4 or 24 hours
  - Confirmations do not require an RTF, thus they do not indicate an SLA



**FORECAST EXCHANGE RULES**

1. The Forecast-RTF exchange process is executed in cycles dictated by the business process agreed between Intel and the sub-con
2. Forecast quantities are Intel's projected requirements for each product. The quantities are obtained from R/3 Flexible Planning. Forecast quantity = Proposed MPS + Proposed MPS NC
3. Forecast has the option to include the current week. If the current week is included in the forecast, the RTF must also include it.
4. Forecast must include the n-month of the agreed planning horizon with the sub-con. The number of months to include in the forecast is a variable limited to the planning horizon in R/3 Flexible Planning
5. The time buckets for the entire planning horizon for Forecast, RTF, and Confirmation is weekly buckets
6. Forecast, RTF, and Confirmations are identified and traced by a revision number at the product level. Any new forecast for a product will have a different product forecast revision which must be also in the RTF and Confirmation
7. For each product, the latest forecast is the valid one. PRF and DCR forecast are just forecast with different SLA for the RTF response. Each forecast sent by Intel is an instruction to the sub-con to overwrite the previous forecast
8. The sub-con must always send an RTF in response to the last forecast sent by Intel. The RTF for a given material is related to the forecast through the product forecast revision. To reconcile forecast with response, for each product the RTF must include the product forecast revision of the last forecast. Therefore, not every forecast transmission will have a response. Example: If Intel sends Forecast1 for product1 and later sends a Forecast2 including product1 again, then the sub-con must respond only to Forecast2 and ignore Forecast1
9. There can be several forecast-RTF exchanges for a given material during the week. Each exchange will be reconciled by the product forecast revision
10. The Sub-con can choose to send one or several RTF transmission for all products that is ready to respond. Example: A Forecast is sent for product1, product2, and product 3. The sub-con has the option to respond with a single RTF transmission for all products or with individual transmissions for one or a few products. The method to respond is dictated by the business process defined between Intel and each sub-con
11. Once the sub-con sends the RTF and this is accepted by Intel, it can't be changed by the sub-con without initiating another forecast transmission. This means that if the sub-con needs to change the RTF; Intel needs to send a forecast again for that product. The communication between Intel and the sub-con in these situations must be handled manually
12. If an RTF is rejected by the Intel Planner, it is considered as if the RTF never was sent. In this situation:
  - a. Intel can chose to send a new forecast transmission or
  - b. Intel can request the sub-con to send a new RTF.
 The communication between Intel and the sub-con in either case is must be handled manually
13. The SLA is used to indicate the sub-con when Intel expects the RTF. The identification and handling of late RTF is a process that is managed by Intel. In this case the Intel planner can use a report to identify delinquent forecast (forecast with a late RTF). The communication between the Intel Planner and the

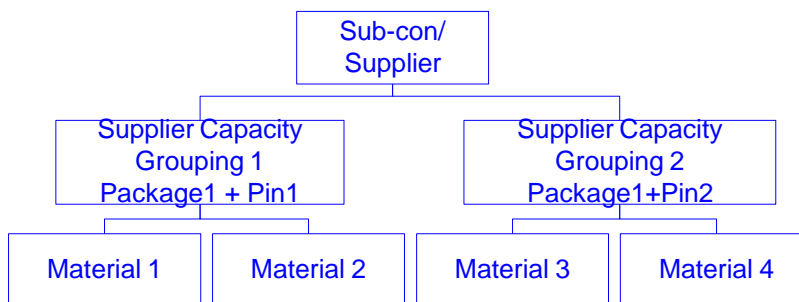
sub-con planner to resolve a late RTF must be handled manually

14. A confirmation is possible only if the RTF is received. Confirmations are linked to an RTF. Confirmations are done at the product level. It is only possible to confirm the response to the last product forecast revision. Like the RTF, the Confirmation has the product revision of the last forecast
15. Confirmations are optional. The use of confirmations is dictated by business process. Following are possible situations:
  - a. Send a confirmation after each RTF
  - b. Have several forecast-RTF transmissions and send a confirmation after the last RTF once a week
  - c. Not send a confirmation at all
16. Given that there can be several forecast-RTF exchanges during the week; it is possible that Intel sends a forecast after a confirmation.
17. In the case of a correction, it is possible to send a new confirmation right after a confirmation has been sent. The sub-con must accept the last transmission as the confirmation.

## COMPONENTS MANUFACTURING FORECAST & CAPACITY EXCHANGE PROCESS

### FORECAST & CAPACITY EXCHANGE PROCESS DEFINITIONS

- **Material or item:** is Intel's material identification
- **Supplier Capacity Grouping:** a predefined combination of material characteristics unique to a sub-con/supplier



- **Sub-con/supplier build plan:** is the sub-con/supplier's requirements for a material
- **Forecast or PRF:** a schedule of Intel's required units quantities for a given item or Supplier Capacity Grouping. This forecast is used for mid-range and tactical processes.
- **Exception or DCR** (demand change request). Forecast sent to overwrite a previously sent forecast as a correction of the previous one. The golden rule is that the latest forecast is the valid one. Exceptions can be caused by errors at Intel.
- **Forecast response or RTF** (response-to-forecast). A schedule of the sub-con/supplier commit unit quantities for a given item or Supplier Capacity Grouping. RTF could be piece part feasible or not, but it is always capacity feasible
- **Buffer Capacity.** A schedule of the sub-con/supplier additional units that can supply to Intel. If it is not needed, then it is assumed zero
- **Max Capacity.** Max Capacity = RTF + Buffer Capacity (for mid-range)  
Max Cap= RTF (for Tactical) MaxR/3 sends Max Cap. to APO as input to the build plan

### DOCUMENT DEFINITION

- The forecast exchange process for Components Manufacturing includes two types of documents:
  - Forecast sent from Intel to the sub-con/supplier. [PIP 4A1](#). It is Intel's request to the sub-con/supplier to assess its internal capability (capacity + materials) to fulfill a particular schedule. There are two Forecast Types:
    - **Tactical Forecast.** It is a forecast schedule in weekly buckets for orderable materials (item level) in the tactical horizon (current to month 2 or 3). Exchanges occur daily only for materials that have demand changes.
    - **Mid-range Forecast.** It is a forecast schedule in weekly & monthly buckets for items or categories in the mid-range horizon (month 2 or 3 to month 9). Exchanges occur twice per month.
  - Response-to-forecast is sent by the sub-con/supplier to Intel. [PIP 4A5](#). It is the sub-con capability schedule. The response always includes a commit schedule (RTF) and optionally the buffer capacity schedule.
- The expected reply time for the Response-to-forecast is known as the RTF service level agreement (SLA). The SLA is defined in days and is specified in each forecast transmission.

- For Tactical Forecast the RTF is expected within 24 or 48 days
- For Mid-range Forecast the RTF is expected within 14 days

## FORECAST EXCHANGE RULES

1. The Forecast-RTF exchange process is executed in cycles dictated by the business process agreed between Intel and the Sub-con/supplier
2. Forecast transmission can be of two types: Tactical Forecast or Midrange Forecast. Each forecast type can have a different frequency of exchange
3. Forecast quantities are Intel's projected requirements for each product. The quantities are obtained from the CapX ROO and can be at the material (item) or Supplier Capacity Grouping level. Forecast quantities are allocated requirements for the sub-con/supplier which include demand (tactical or mid-range) from the planning tools and Engineering figures. Forecast quantities can be either at the item level (6-3, L3, or L1.5) or Supplier Capacity Grouping level
4. Forecast quantities can refer to the overall demand for the sub-con/supplier or the demand for a particular site. This is a variable in the CapX ROO.
5. Forecast has a variable horizon depending on whether is tactical or midrange. The RTF must have the same horizon as the forecast.
6. RTF for mid-range processes includes, in addition to the commit schedule, a schedule for buffer capacity. If the sub-con/supplier does not send buffer capacity, then quantities must be zero in the transmission
7. Forecast horizon is the same for all materials included in the transmission. Forecast horizon for tactical processes normally includes current date through month 2 or 3. Forecast horizon for mid-range processes is usually month 3 or 4 through month 9.
8. The time buckets for Tactical Forecast and RTF is weekly buckets. The time buckets for Mid-range Forecast and RTF is weekly and monthly buckets.
9. Forecast and its RTF are identified and traced by a revision number assign to the products (item or Supplier Capacity Grouping level). Any new forecast for a product will have a different product forecast revision which must be also in the RTF.
10. For each product, the latest Tactical or Mid-range forecast is the valid one. Each forecast sent by Intel is an instruction to the sub-con/supplier to overwrite the previous forecast.
11. The sub-con/supplier must always send an RTF in response to the last forecast sent by Intel. The RTF for a given material is related to the forecast through the product forecast revision. To reconcile forecast with response, for each product the RTF must include the product forecast revision of the last forecast. Therefore, not every forecast transmission will have a response.  
Example: If Intel sends Forecast1 for product1 and later sends a Forecast2 including product1 again, then the sub-con/supplier must respond only to Forecast2 and ignore Forecast1.
12. The Sub-con/supplier can choose to send one or several RTF transmission for all products that is ready to respond. Example: A Forecast is sent for product1, product2, and product 3. The sub-con/supplier has the option to respond with a single RTF transmission for all products or with individual transmissions for one or a few products. The method to respond is dictated by the business process defined between Intel and each sub-con/supplier.

13. Once the sub-con/supplier sends the RTF and this is accepted by Intel, it can't be changed by the sub-con/supplier without initiating another forecast transmission. This means that if the sub-con/supplier needs to change the RTF; Intel needs to send a forecast again for that product. The communication between Intel and the sub-con/supplier in these situations must be handled manually (off-line).
14. If an RTF is rejected by the Intel Planner, it is considered as if the RTF never was sent. In this situation:
  - Intel can chose to send a new forecast transmission or
  - Intel can request the sub-con/supplier to send a new RTF.The communication between Intel and the sub-con/supplier in either case is must be handled manually (off-line).
15. The SLA is used to indicate the sub-con/supplier when Intel expects the RTF. The identification and handling of late RTF is a process that is managed by Intel. In this case the Intel planner can use a report to identify delinquent forecast (forecast with a late RTF). The communication between the Intel Planner and the sub-con/supplier planner to resolve a late RTF must be handled manually.

## DOCUMENT MANAGEMENT

Version	Revision Date	Modifier	Description
1.00	9/3/2003	Johanny Jacobsen-Steigerwald	First working draft for this version.
1.00	10/14/03	Johanny Jacobsen-Steigerwald	Added updated field mapping doc.