

SAR: Coordinate Interchange Transactions

Title of Proposed Standard:	Coordinate Interchange Transactions
Request Date:	March 7, 2002
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SAR ID# :	COORD_INTERCHNG_01_04

SAR Requestor Information		SAR Type (Put an 'x' in front of one of these selections)	
Name:	Jim Byrd (Albert DiCaprio as substitute)	X	New Standard
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Notes:

1. The NERC Functional Model has not been finalized. Modifications to the Functional Model may require some conforming changes to this SAR.
2. There is much industry disagreement on the terms used to describe the various stages of coordinating interchange. The SAR DT assembled a series of charts that shows the steps in coordinating interchange. These charts are attached to this SAR and highlight the application of the following terms:
 - Interchange Transaction
 - Interchange Schedule

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Purpose/Industry Need (Please see diagram attached)

To ensure that the implementation of Interchange Transactions between Sink and Source Balancing Authorities is coordinated by the Interchange Authority such that the following reliability objectives are met:

- Each Interchange Schedule is checked for reliability before it is implemented
- The Balancing Authorities implement the Interchange Schedule exactly as agreed upon in the Interchange Confirmation process
- Interchange Schedule information is available for reliability assessments

For the purpose of this SAR, the following definitions have been adopted:

- **INTERCHANGE TRANSACTION.** An agreement arranged by a Purchasing-Selling Entity to transfer energy from a seller to a buyer.
- **INTERCHANGE SCHEDULE.** An authorized interchange transaction, approved by all entities, that is implemented (goes physical) between a BA and IA.
- **INTERCHANGE IMPLEMENTATION** - The physical initiation of an approved interchange schedule

Brief Description

To ensure reliability related data pertaining to interchange transactions is verified and communicated to functional authorities. Reliability related data to be verified should include megawatt magnitude, ramp start and stop times, and the interchange transaction's duration. Reliability related data should be communicated by and between the Interchange Authority, Balancing Authority, Reliability Authority, Transmission Service Provider, and Purchasing-Selling Entity functions.

Verification of data should indicate that a mutual agreement exists between parties that intend to implement a proposed interchange transaction as well as approval by the appropriate functional authorities.

To provide a mechanism for interchange transaction identification that could be used for congestion management and/or relieving operating limit violations.

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Reliability Functions

The Standard will Apply to the Following Functions <i>(Put an 'X' in front of each one that applies)</i>		
X	Reliability Authority	Ensures the reliability of the bulk transmission system within its Security Authority Area. This is the highest reliability authority.
X	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within its metered boundary and supports system frequency in real time
X	Interchange Authority	Authorizes valid and balanced Interchange Schedules
	Planning Authority	Plans the bulk electric system
X	Transmission Service Provider	Provides transmission services to qualified market participants under applicable transmission service agreements
	Transmission Owner	Owns transmission facilities
	Transmission Operator	Operates and maintains the transmission facilities, and executes switching orders
	Distribution Provider	Provides and operates the "wires" between the transmission system and the customer
	Generator	Owns and operates generation unit(s) or runs a market for generation products that performs the functions of supplying energy and Interconnected Operations Services
X	Purchasing-Selling Entity	The function of purchasing or selling energy, capacity and all necessary Interconnected Operations Services as required.
	Load-Serving Entity	Secures energy and transmission (and related generation services) to serve the end user

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Reliability and Market Interface Principles

Applicable Reliability Principles (Put an 'x' in front of all that apply)	
X	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions
X	2. The frequency of interconnected bulk electric systems shall be controlled within defined limits through the balancing of electric supply and demand
X	3. Information necessary for planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably
	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented
X	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems
	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified and have the responsibility and authority to implement actions
X	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis
Does the proposed Standard comply with all of the following Market Interface Principles?	
<i>(Enter 'yes' or 'no')</i>	
	Yes
1.	Interconnected The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy
2.	An Organization Standard shall not give any market participant an unfair competitive advantage
3.	An Organization Standard shall neither mandate nor prohibit any specific market structure
4.	An Organization Standard shall not preclude market solutions to achieving compliance with that Standard
5.	An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards

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Detailed Description: This standard will include requirements for the exchange of reliability-related data pertaining to Interchange Transactions.

The standard shall contain the following requirements for the BA:

- BA shall confirm (with the IA) its approval or denial of the requested Interchange Schedule
- BAs shall implement Interchange Schedules exactly as agreed upon in the interchange confirmation process

The standard shall contain the following requirements for the IA:

- The IA shall confirm the approvals from all involved parties (RAs, BAs, TSPs) and shall authorize, upon confirming approvals, the implementation of Interchange Schedules
- The IA shall confirm that Interchange Transactions are balanced and valid prior to physical delivery
- The IA shall communicate implementation status to all parties (with which the Interchange Transaction must be coordinated)

The standard shall contain the following requirements for the RA:

- The RA shall receive and confirm Interchange Transaction information with the IA
- The RA shall approve or deny the request from the IA based on reliability perspectives.

The standard shall contain the following requirements for the TSP:

- TSP shall receive and confirm Interchange Transaction information with the IA
- The TSP shall approve or deny the request from the IA

The standard shall contain the following requirements for the PSE:

- When an entity desires to transfer energy, the entity initiating the transaction shall submit, as a minimum, the following reliability-related transaction data to its IA:
 - Desire to transfer energy
 - Megawatt magnitude
 - Ramp start and stop times
 - Interchange transaction's duration
 - Sufficient information for all approval entities
- The PSE shall request approval for interchange transactions from the IA
- The PSE shall confirm interchange transaction requirements with the IA

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Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation
BAL_RES_&_DEMND_01_03	The “Balance Resources and Demand” SAR identifies requirements matching resources with demand. Some of the data required to ensure “balance” comes from transactions and is referenced in this Coordinate Interchange SAR.
OPER_WITHN_LMTS_01_02	The “Operate Within Transmission Limits – Monitor and Assess Short Term Reliability” SAR includes requirements that the RA monitor the overall reliability of the RA Area. This includes the requirement that data be collected and analyzed to ensure security. Some of the data collected for security analyses is included in this Coordinate Interchange SAR.
COORD_OPERATONS_01_01	The “Coordinate Operations” SAR may include requirements such as entering data into the IDC. The data for this comes from Interchange.
ABNML_&_EM_COND_01_01	The “Prepare for and Respond to Abnormal or Emergency Conditions” SAR identifies requirements for recognizing and responding to emergency conditions. Some emergencies may involve curtailment of interchange schedules.

Regional/Interconnection Differences

Region	Explanation
ECAR	none
ERCOT	ERCOT: As a single Control Area (Balancing Authority) interconnection there are no true Interchange Schedules in ERCOT. The only Interchange is over DC ties, which will have unique requirements. Oncor: ERCOT has an Interconnection Difference by Legislative direction for retail choice. There are no transmission reservations requirements and generation/load schedules are part of the real-time competitive market.
FRCC	none
MAAC	none
MAIN	none
MAPP	none
NPCC	none
SERC	none
SPP	none
WECC	none

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Implementation Plan

Description (Preliminary.)

Portions of Policy 3 will be deleted when this SAR is implemented. Policy 3 contains some procedures that may need to be transformed from Policies into commercial practices or supporting documents in concert with the implementation of this new standard.

Team Assignments

“Coordinate Interchange” SAR Drafting Team

Chairman: Doug Hils

Secretary/Facilitator: Gordon Scott

Requestor: Jim Byrd (Albert DiCaprio as substitute)

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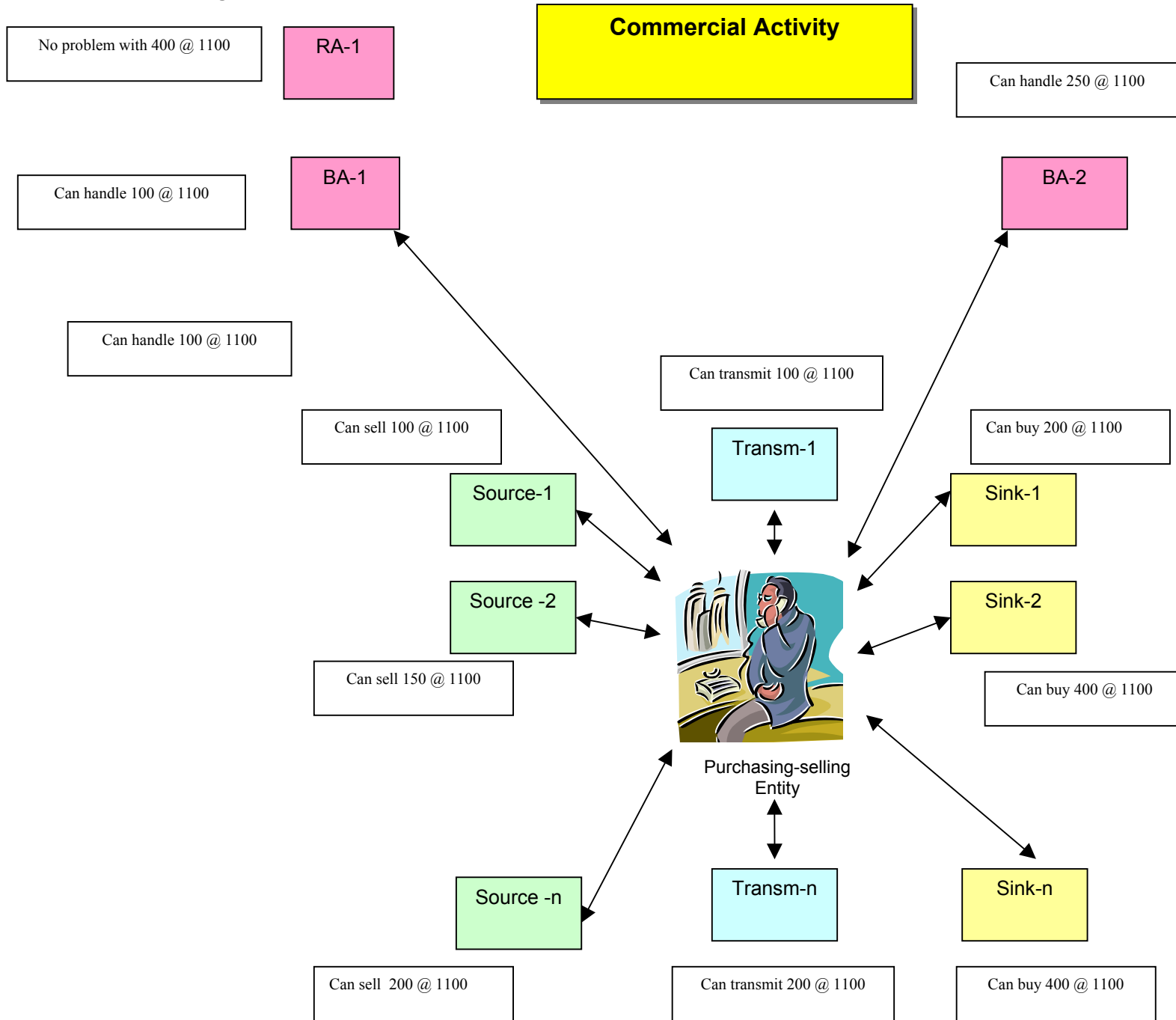
Jim McIntosh

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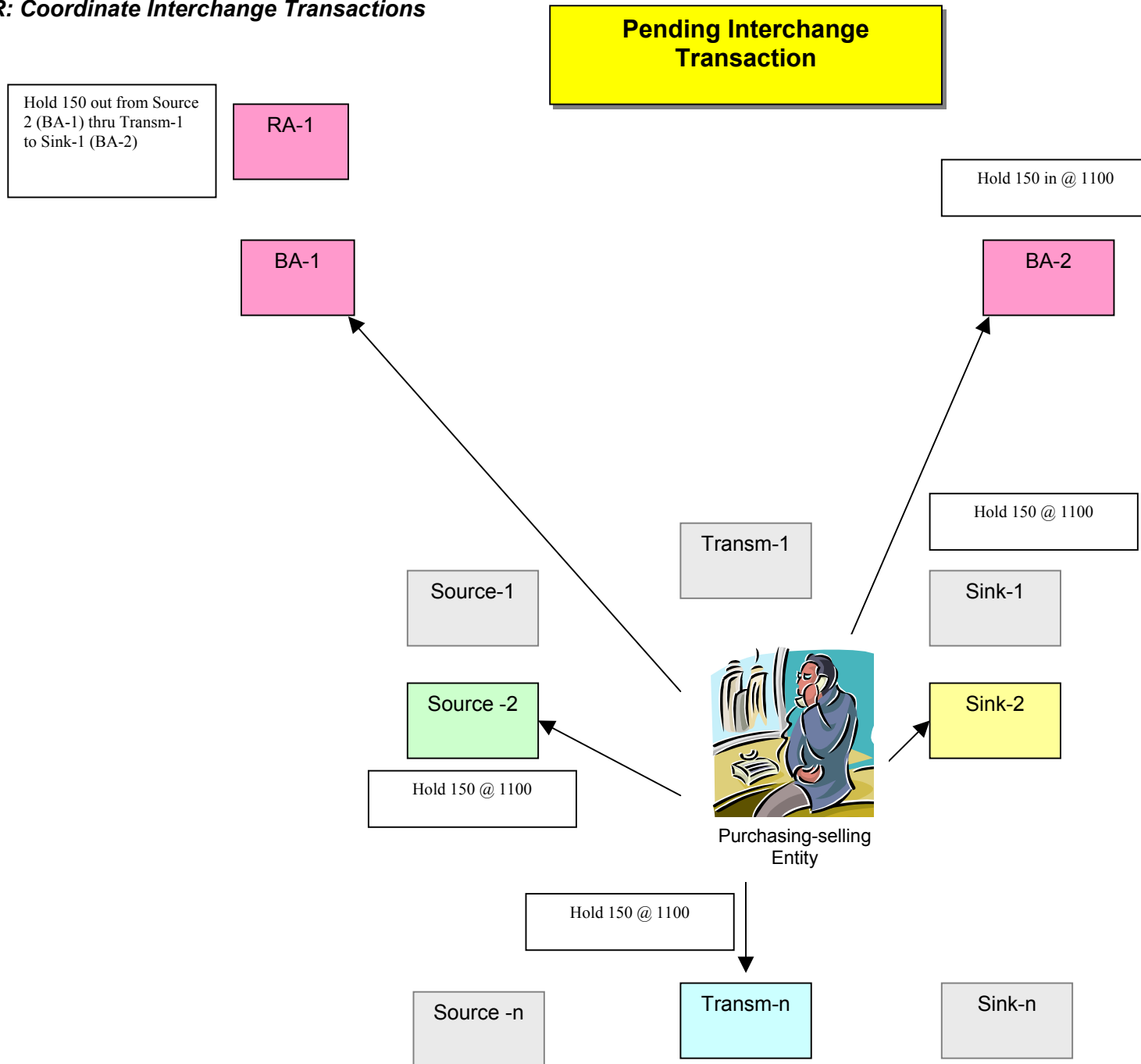
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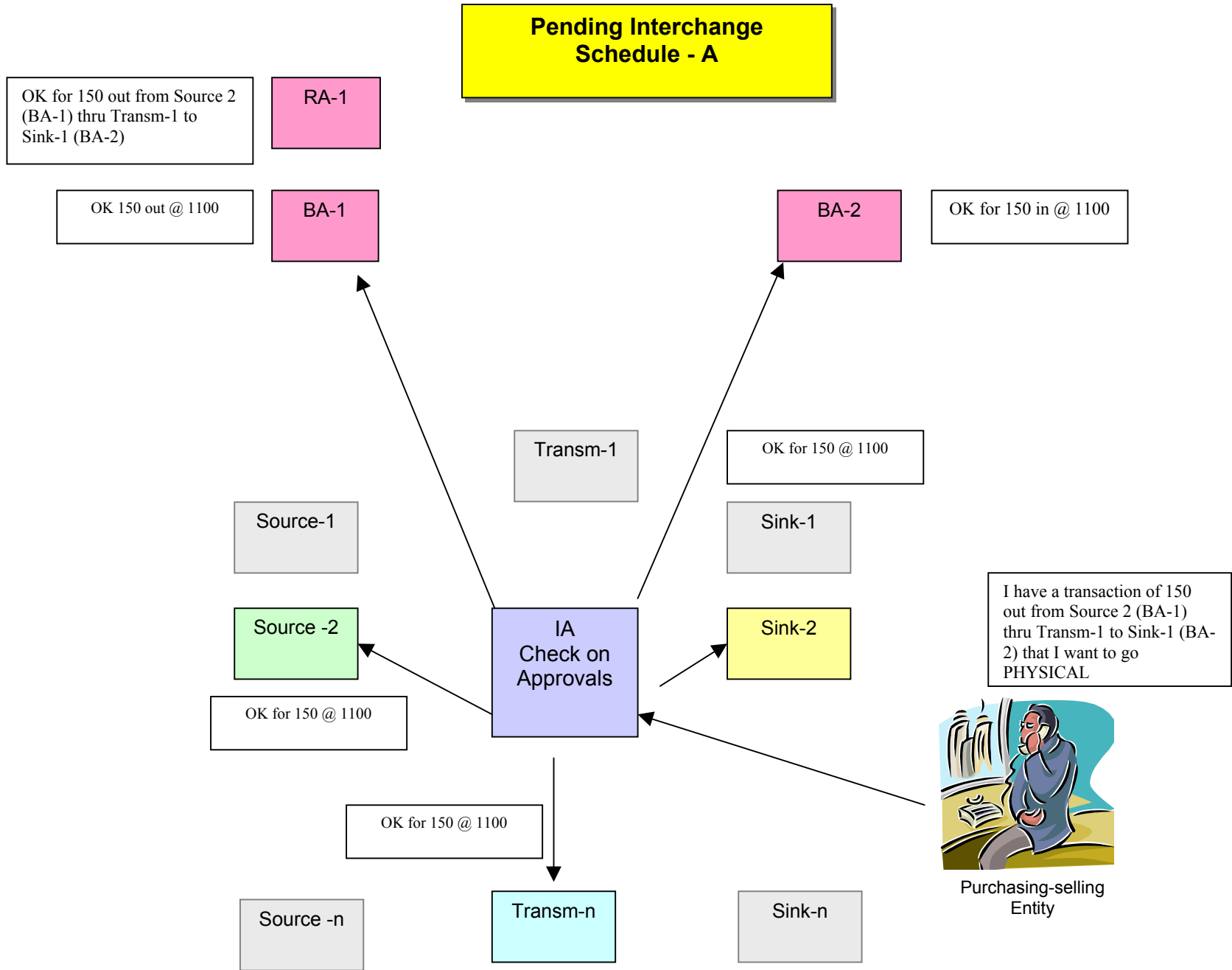
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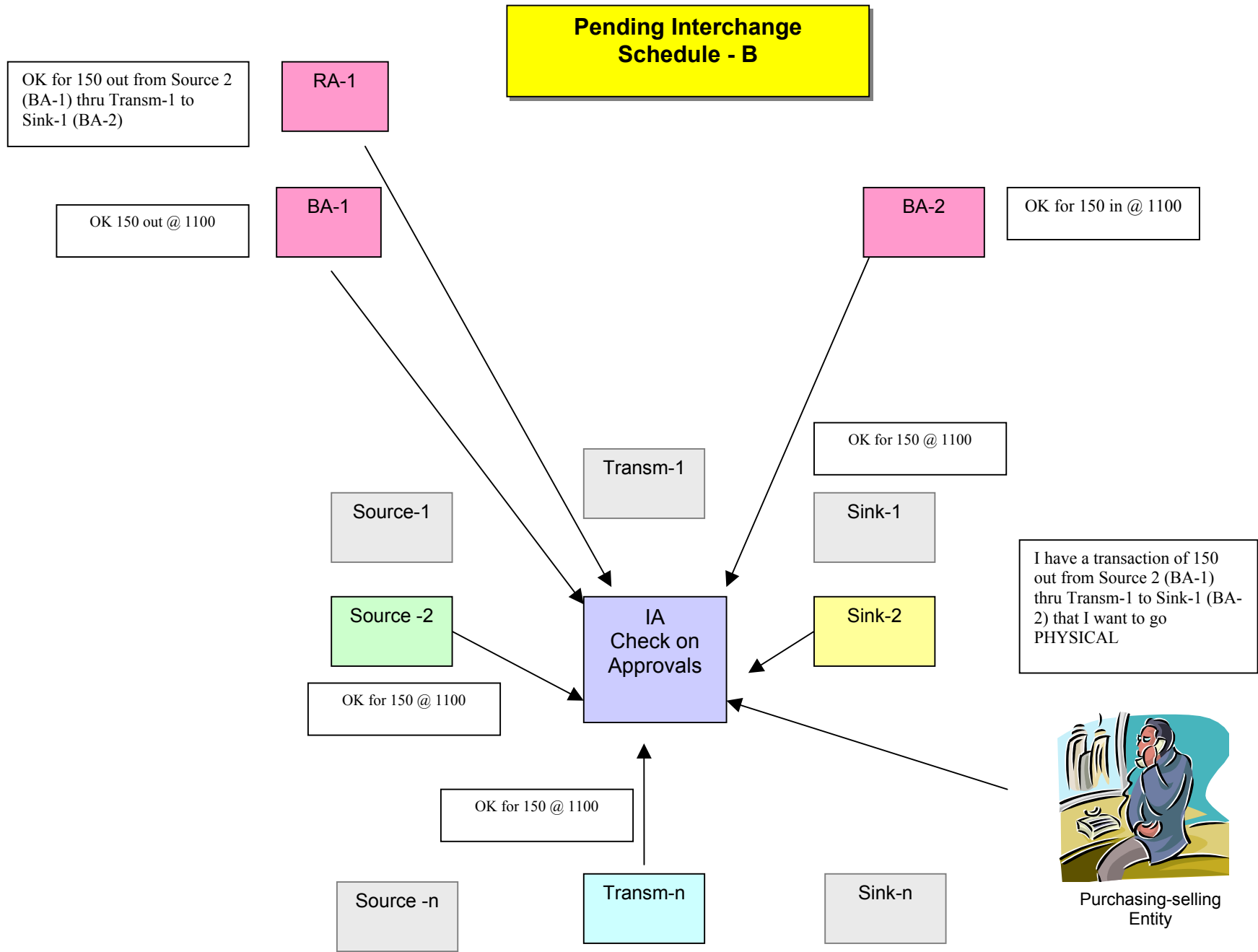
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