Cross Contract Ranking Discussion Paper
Koch Gateway Pipeline Company
November 1998

Work Paper Submitted by Koch

For the 11/16 Cross Contract Ranking Meeting

Scheduling Process:

Within the Scheduling Process ranks should only be used as the last method of setting the scheduled volume after all Type of Service rules have been applied. Ranks should only be used within a Scheduling level as defined by each pipeline's tariff (such as IT - max. rate) and are not used across Scheduling levels. This ensures that capacity is allocated based upon the contract priorities used to schedule the pipe. Rankings should not be used to distribute gas between scheduling levels. To allow rankings to be used to move gas between paths following the scheduling process has the potential to put a pipeline into an endless scheduling loop.

Sample below: Pathed Non-Threaded Model - Path records are evaluated within the Scheduling Process. The following example assumes that a scheduling constraint exists at a receipt point.

Customer A at Meter 12345

FT # 1 Primary Firm, Nominates 1000, Receipt Rank 5
FT # 2 Primary Firm, Nominates 1500, Receipt Rank 4
IT # 1 - Max Rate, Nominates 700, Receipt Rank 2
IT - Disc., Nominates 300, Receipt Rank 1
IT #2 - Max Rate, Nominates 500, Receipt Rank 3
Total Nominated Quantity = 4000

If the Scheduling Process determines that 3200 can be scheduled the following will occur:

1500 Scheduled for FT # 2 (This contract has the highest priority for Primary Firm Service [Rank of 4])

1000 Scheduled for FT # 2 (This contract has the next priority for Primary Firm Service [Rank of 5])

700 Scheduled for IT # 1 (Highest ranked contract within this scheduling level [Rank of 2])

IT #2 Not Scheduled [Rank of 3]

IT - Disc. Not Scheduled [Rank of 1]

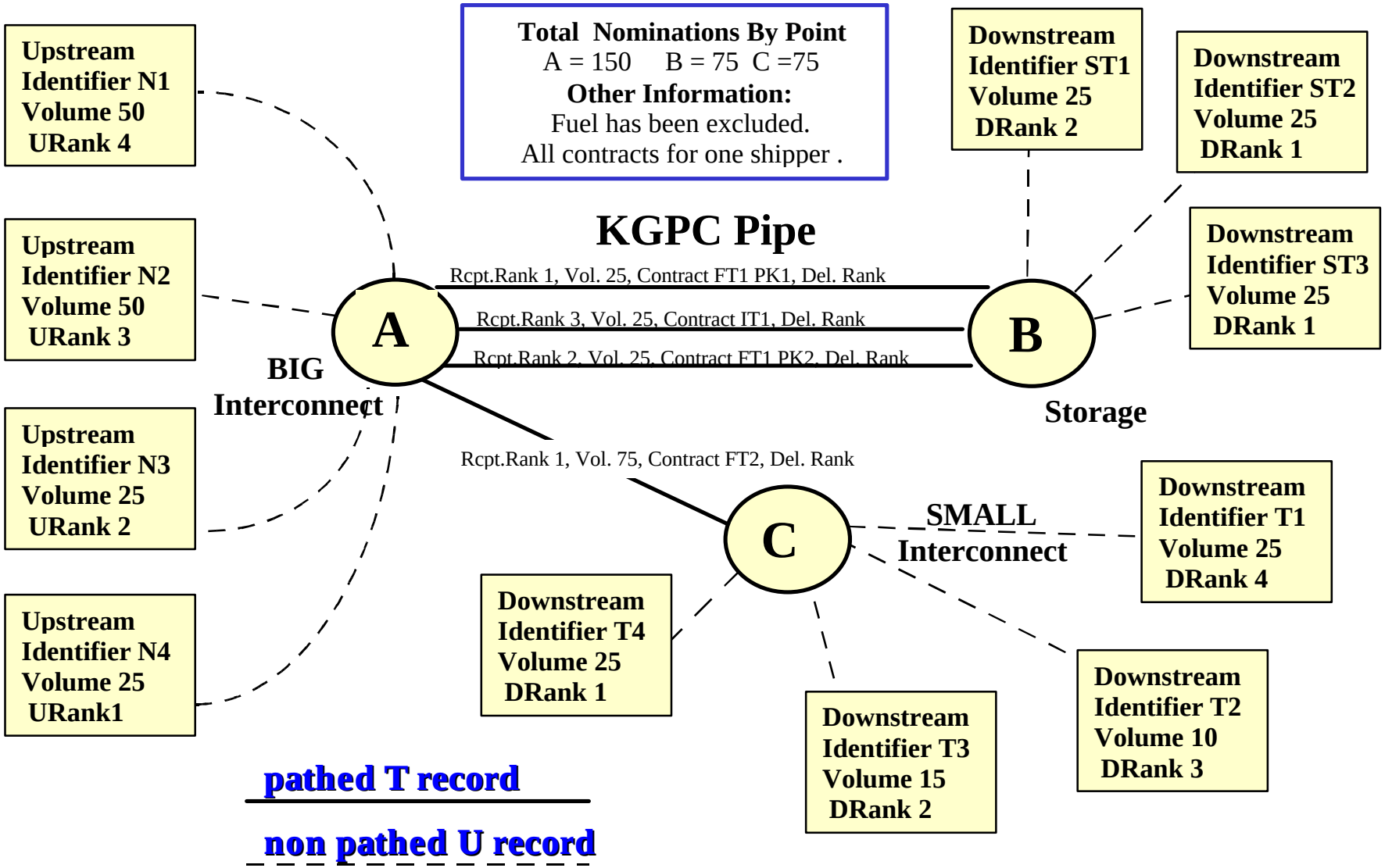
Note: Ranks will be used on the Upstream (Non-Pathed) records to distribute the scheduled volume to the upstream records. Upstream records are not linked to any specific Type of Service.

Confirmation Process:

Within the Confirmation Process rankings are used in all instances to distribute quantities between “U records” and between “T records”. Sample below (assumes that paths are balanced by process):

The following pages illustrate how Cross Contract Ranking can work using the Pathed Non-Threaded Nomination Model. Although most pipelines do not utilize this model, the concepts which can be learned from its understanding, may benefit the participants of the Cross Contract Ranking group.

Scenario 1: Pathed Non Threaded Ranking Example



Scenario 1:

1 Big Interconnect can only confirm a flow of 100 at receipt point A where 150 had been nominated. Total cut of 50 is needed. This is a point constraint and is not directly associated with any of the Upstream parties. Based upon the ranking provided by the shipper, the following actions should occur.

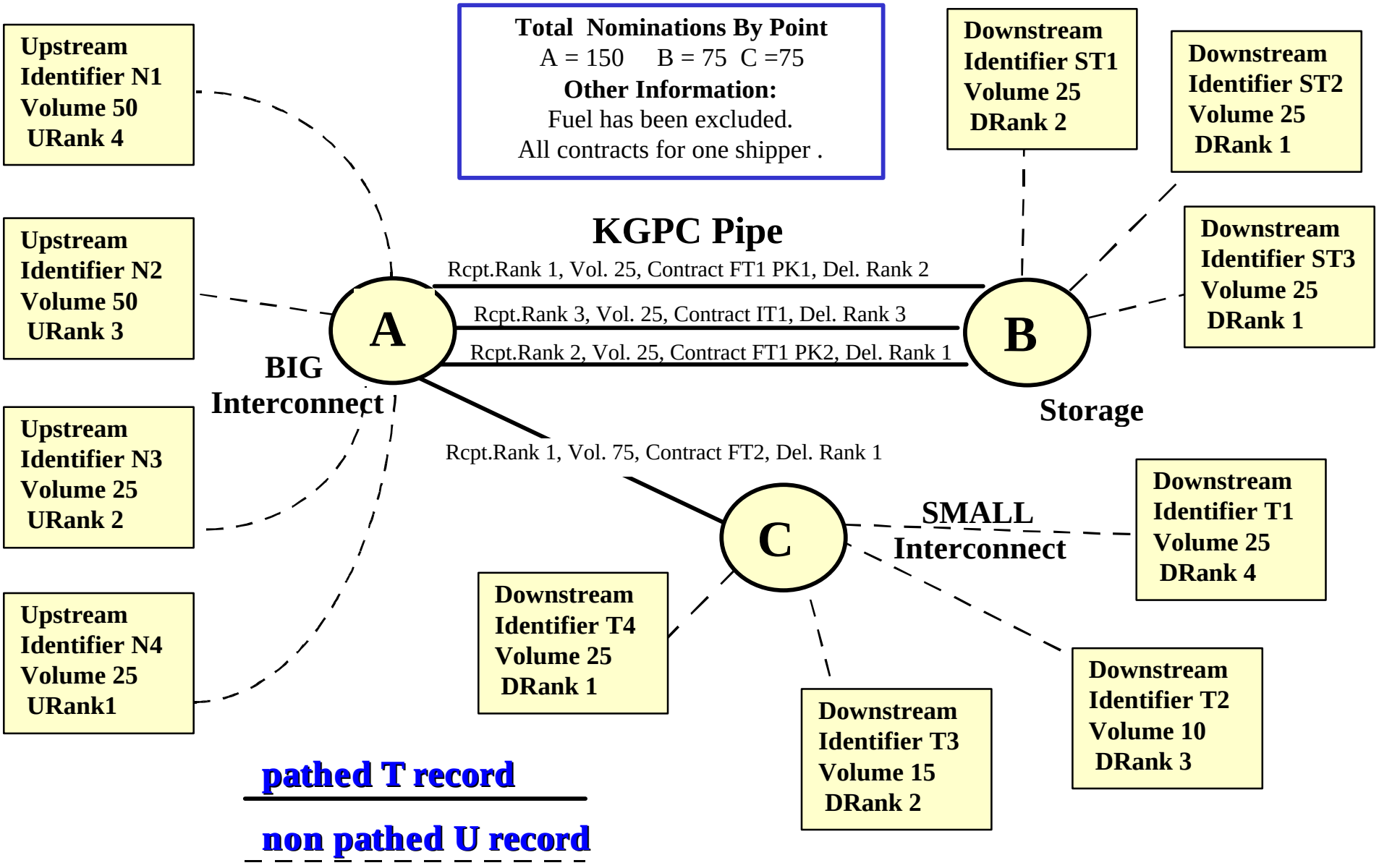
2 Upstream party N1 is cut by 50 to 0. The remaining Upstream parties at point A are confirmed as nominated.

3 Contract IT1 is cut by 25 to 0 since it has ranked with the lowest receipt priority. 25 remains to be cut. Contract FT1 PK2 is cut by 25 to 0 since it has been ranked with the next lowest receipt priority. Other contracts paths are not affected.

4 Downstream party ST1 is cut by 25 to 0 since it has been ranked with the lowest downstream priority at Storage point B. 25 remains to be cut.

5 Since ST2 and ST3 have identical Downstream ranks, they will be handled pro rata. ST2 will receive 13 and ST3 will receive 12.

Scenario 2:


Total Nominations By Point
A = 150 B = 75 C =75
Other Information:
Fuel has been excluded.
All contracts for one shipper .
Upstream Identifier N1 Volume 50 URank 4
Upstream Identifier N2 Volume 50 URank 3
Upstream Identifier N3 Volume 25 URank 2
Upstream Identifier N4 Volume 25 URank1
KGPC Pipe
Rcpt.Rank 1, Vol. 25, Contract FT1 PK1, Del. Rank 2
Rcpt.Rank 3, Vol. 25, Contract IT1, Del. Rank 3
Rcpt.Rank 2, Vol. 25, Contract FT1 PK2, Del. Rank 1
Rcpt.Rank 1, Vol. 75, Contract FT2, Del. Rank 1
A
B
C
BIG Interconnect
Storage
SMALL Interconnect
Downstream Identifier ST1 Volume 25 DRank 2
Downstream Identifier ST2 Volume 25 DRank 1
Downstream Identifier ST3 Volume 25 DRank 1
Downstream Identifier T1 Volume 25 DRank 4
Downstream Identifier T2 Volume 10 DRank 3
Downstream Identifier T3 Volume 15 DRank 2
Downstream Identifier T4 Volume 25 DRank 1
pathed T record
non pathed U record

Cross Contract Ranking Discussion Paper
Koch Gateway Pipeline Company
November 1998

Scenario 2

Same as Scenario 1 with the additional information that Storage Contract ST2 can not be confirmed due to lack of an Injection nomination from the Storage customer. Delivery problems are addressed prior to Receipt problems. The following will occur

1 **Downstream party ST2 can not be confirmed and is cut to 0. A cut of 25 is needed to balance.**

2 Contract IT1 is cut by 25 to 0 since it has ranked with the lowest delivery priority. All remaining paths are OK based upon the first constraint.

3 Upstream party N1 is cut by 25 to 25 at point A. Model balances based upon delivery constraint.

4 **BIG Interconnect will only confirm 100 at receipt point A. A cut of 25 is needed to balance this constraint because 125 remains nominated at point A following the delivery constraint.**

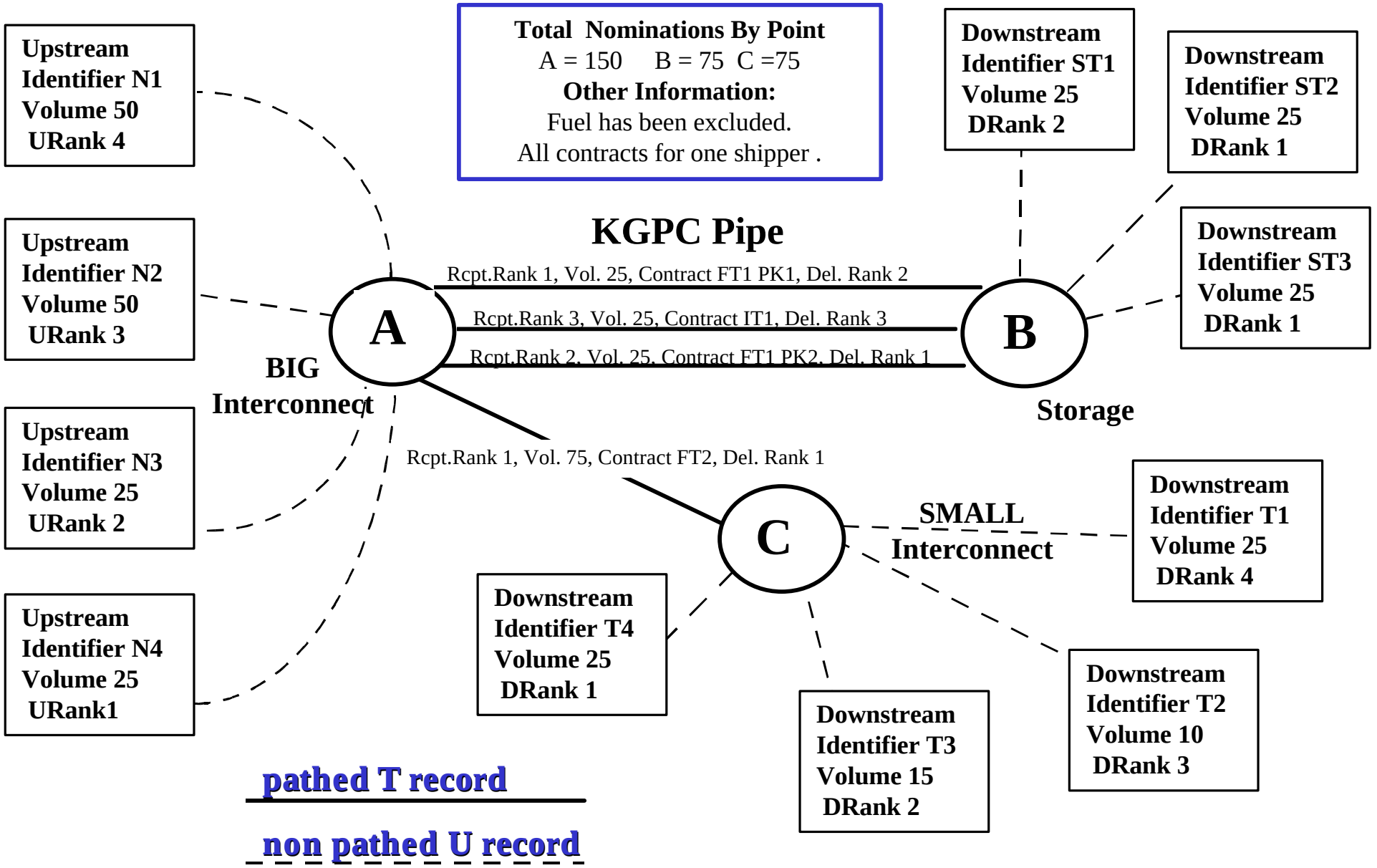
5 Upstream party N1 is cut by 25 to 0 based upon N1's lowest upstream rank. Remaining upstream parties at point A N2, N3 and N4 are confirmed as nominated.

6 Contract FT1 PK2 is cut by 25 to 0 since it has been ranked with the next lowest receipt priority(2). Contract FT1 PK1 and FT2 are confirmed as nominated.

7 Downstream party ST1 is cut by 25 to 0 based upon its downstream rank.

All constraints have been satisfied and the model is in balance.

Scenario 3:


Total Nominations By Point
A = 150 B = 75 C =75
Other Information:
Fuel has been excluded.
All contracts for one shipper .
Upstream Identifier N1 Volume 50 URank 4
Upstream Identifier N2 Volume 50 URank 3
Upstream Identifier N3 Volume 25 URank 2
Upstream Identifier N4 Volume 25 URank1
KGPC Pipe
Rcpt.Rank 1, Vol. 25, Contract FT1 PK1, Del. Rank 2
Rcpt.Rank 3, Vol. 25, Contract IT1, Del. Rank 3
Rcpt.Rank 2, Vol. 25, Contract FT1 PK2, Del. Rank 1
A
BIG Interconnect
B
Storage
Rcpt.Rank 1, Vol. 75, Contract FT2, Del. Rank 1
C
SMALL Interconnect
Downstream Identifier ST1 Volume 25 DRank 2
Downstream Identifier ST2 Volume 25 DRank 1
Downstream Identifier ST3 Volume 25 DRank 1
Downstream Identifier T1 Volume 25 DRank 4
Downstream Identifier T2 Volume 10 DRank 3
Downstream Identifier T3 Volume 15 DRank 2
Downstream Identifier T4 Volume 25 DRank 1
pathed T record
non pathed U record

Scenario 3

1 SMALL Interconnect notifies KGPC that Downstream party T4 will not be confirmed. All other information from Scenarios 1 and 2 continue to exist. Delivery problems are addressed prior to Receipt problems. The following actions will occur.

2 Downstream party ST2 can not be confirmed and is cut to 0. A cut of 25 is needed to balance.

3 Upstream party N1 is cut by 25 to 25 at point A based upon its upstream rank of 4.

4 Downstream party T4 cannot be confirmed and is cut to 0. A cut of 25 is needed to balance.

5 Contract FT2 is cut by 25 to 50.

6 Upstream party N1 is cut by 25 to 0 at point A based upon its upstream rank of 4. Model balances based upon delivery constraints.

7 BIG Interconnect will only confirm 100 at point A. Only 100 remains to be confirmed. All remaining upstream parties at A are confirmed (N2, N3, and N4).

All constraints have been satisfied. Model is in balance.