

# Buyer's Guide New Features for Beta Testing Merkato Version 2.2

June 2002

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## Making the Reservation

- 1. Connect to the marketplace by clicking on the Connect icon ()
- 2. If the News window is not visible, select "News" from Status pull-down menu. The News window appears.



- 3. Click the Start icon ().
- 4. Read the available bandwidth capacity from either the News or the Resource window. If this capacity is greater than or equal to what you want, proceed. (If not, you can either attempt to obtain what is available or consider buying bandwidth on the spot market.)
- 5. From the Strategy pull-down menu, select Reservation Strategy. (Expand the display area, if necessary, to see the Reservation Strategy window at the bottom.



6. Click the pack icon (D) on the menu-bar or select "Pack" under the View pulldown menu. The agent window resizes itself to accommodate the windows you are currently displaying. 7. In the Reservation Strategy window, make sure the Current Strategy button is selected.

Start Time Current Time: 2002 June 03, 11:21 Year: Month: Day: Hour: Min: C 2002 V June V 3 V 11 V 22 V C end time of a reservation: 2002 June 28, 1:00 V End Time Year: Month: Day: Hour: Min: C 2002 V June V 4 V 11 V 10 V C start time of a reservation: 2002 June 27, 1:00 V		Current Strategy
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2.0 0.03 Get Quote		

If the quantity (Mbps) or time units (month) do not suit your needs, you can change the units. Select Units from the Selection pull-down menu. The Units box lets you use Kbps, Mbps, or Gbps, as well as minutes, hours, days, or months.

- **Note:** When making reservations on Merkato, synchronize you PC clock time to the time shown in the Reservation Strategy window.
  - 8. In the Start Time panel, select when you want the reservation to begin. There are three choices for the start time of your reservation:

**Current Time:** If you select Current Time, the reservation, if accepted, begins immediately. To select the present as a start time click the radio button on the left.

**Future time:** If you want the reservation to start at a certain future time, enter the year, month, day, hour, and minute at which you want the reservation to start. You must make sure that the date is valid (not February  $30^{th}$ , for example). Should you inadvertently enter an invalid date, Merkato attempts to determine your intent and present an equivalent valid date. If this is not what you intended to specify, you will have the chance to refuse the reservation and return to the date selection window. To select a future start time click the radio button on the left.

end time of a reservation: If you have already created one or more reservations, they appear in this pull-down list. You can select the end of one of these existing

reservations as the start time of the new reservation you are making. Select it from the list and click the radio button on the left.

- 9. Enter the amount of bandwidth you want in the Reservation portion of the box.
- 10. If you are satisfied that the quantity and duration specified, click **Get Quote**. A confirmation box appears.

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?	We are pleased to accept your reservation of 10.0 Mbps, for resource demo-res to start immediately and end at: 12/2/01 10:26 for a total cost of \$1770.61. You may terminate your reservation at any time for a cancellation fee of 10% of the remaining amount you would have paid under this agreement. Accept Refuse				

11. If the price and cancellation fee are acceptable, click **Accept**. Otherwise, click **Refuse** and revise your reservation request.

Once you click Accept your reservation is activated.

12. To review or cancel your reservation, select "Reservation Table" from the Status pull-down menu. The Reservation table appears.

Reservations	Table					×	
Quantity	Price	Start	End	Duration	Cost		
1.5 Mbps	0.38 \$/h/Mbps	6/27/02 01:00	6/28/02 01:00	24.0 h	13.85\$		
1.5 Mbps	0.38 \$/h/Mbps	6/28/02 04:00	6/29/02 06:00	26.0 h	14.9\$		
15.0 Mbps	0.38 \$/h/Mbps	6/29/02 05:00	7/1/02 02:10	45.17 h	256.32 \$		
20.0 Mbps	0.41 \$/h/Mbps	6/29/02 05:00	6/30/02 02:30	21.5 h	177.98 \$		
20.0 Mbps	0.38 \$/h/Mbps	6/30/02 02:30	7/2/02 03:15	48.75 h	370.4 \$		
15.0 Mbps	0.46 \$/h/Mbps	7/1/02 07:00	7/1/02 07:30	0.5h	3.45 \$		
	Cancel Reservation						

13. To cancel a reservation, select it from the Reservation table and click **Cancel Reservation**.

## **Exiting Merkato**

To exit the Merkato desktop, click the close-box tab at the upper right hand corner of the window  $(\mathbf{X})$ , or select "Exit Merkato" from the File pull-down menu.

You can leave the portal page in the browser open to monitor your agent status, or click Logout in the list on the left side of the window.

InvisibleHand Networks, Inc. Buyer's Guide to Using Merkato

# **Using Quick Response Bidding**

Traffic-Based valuation makes the Merkato Buyer agent respond to changes in network traffic. As traffic fluctuates, the Buyer agent reacts by changing the quantity of bandwidth it bids for. This change is incremental; the agent bids for the measured traffic (plus the quantity margin) for the duration of the Time Window.

However, traffic may increase dramatically during that time.

The Quick Response feature is useful for buyers who know, when traffic reaches a certain threshold, that the agent should increase its bidding quantity to a specific peak. This is the peak traffic the buyer expects.

The Quick Response feature works with Traffic-based bidding to make Merkato bidding jump to a certain quantity. It works only when Traffic Valuation is activated.

### Example

In the illustration, the traffic window is set to 30 minutes. The agent bids for the quantity of bandwidth used during peak traffic (plus the Quantity Margin) during the previous 30 minutes. Every five minutes the agent examines the traffic during the previous 30 minute window and changes its bidding accordingly.

measured traffic quantity agent bids for 30 minute Time Window (6 5-minute increments) Peak measured traffic from previous window With a 30 minute Time Window, every 5 minutes quantity the agent checks the traffic for the previous 30 minutes, looking for the peak. The agent bids for the peak measured traffic plus the Quantity Margin. } Qty. Margin time The process is repeated every 5 minutes-Merkato bids at the peak traffic rate measured during the past Time Window. As the Time Window moves up, older peaks pass out of the window. Qty. Margin measured Time Window peak moves up time

### The Quick Response Tab

When Quick Response is enabled (as well as Traffic-based valuation), your agent reacts to bursts of traffic by starting immediately to bid at the Est. Peak Traffic level (plus the Qty. Margin).

Budget Valuation with Limits	×							
C Current Valuation								
Valuation - Traffic-based - Quick	Response							
<ul> <li>Active</li> <li>Not Ready</li> <li>Ready</li> <li>Engaged</li> <li>Apply</li> </ul>	raffic Threshold Mbps 6.0 st. Peak Traffic Mbps 20.0							

An agent with Quick Response enabled uses the values you place in two fields:

**Traffic Threshold**—The quantity of traffic that triggers the Quick Response. When Merkato detects this level of traffic it changes the amount of bandwidth that the agent bids for.

**Est. Peak Traffic** —When Quick Response is triggered, the amount the agent bids for is the amount you enter in the Est. Peak Traffic field, plus the Quantity Margin.

**Note:** Est. Peak Traffic cannot exceed the amount in the valuation window's Quantity field. If you enter a number in this field that is larger than the number in the Quantity field an error message appears.

Active check box—Checking this box enables Quick Response bidding on your agent.

**Apply**—Clicking **Apply** makes the numbers entered in the fields of the Quick Response tab active. The Merkato agent continues bidding at the Quick Response rate until the Time Window has elapsed. The display shows the Quick Response is Engaged.

When the Time Window has elapsed, if no traffic above the traffic threshold has occurred, Traffic-based bidding resumes. The display shows that Quick Response is Not Ready. This state remains until the end of the next Time Window.

If, during the Time Window, Merkato detects traffic above the threshold, the display returns to Engaged and the agent resumes bidding at the Quick Response Rate.

If, during the next Time Window, Merkato does not detect traffic above the Traffic Threshold, the display returns to Engaged. The agent resumes Traffic-based bidding. This continues until the next time Quick Response is triggered.

The signals mean the following:

**Not Ready:** Quick Valuation has been engaged, but there has not yet been a Time Window during which all traffic is below the Traffic Threshold. If a Traffic Window ends with no traffic above the threshold, the signal returns to Ready.

**Ready:** Quick Response is active, but no traffic above the Traffic Threshold been detected.

**Engaged:** Merkato has detected traffic above the Traffic Threshold and Quick Response is active. This state remains for at least the duration of the Traffic Window.

There is no guarantee of getting an amount of bandwidth equal to your estimated peak traffic. There are two reasons for this:

- The Estimate Peak Traffic may exceed the amount the Seller is offering.
- The Estimate Peak Traffic may exceed your budget (for instance, if demand is higher than you anticipated and your budget does not cover the cost). Your Agent will still try to acquire as much bandwidth as it can.

## Select a Strategy

You can bid using an automatic strategy or a manual strategy.

- An automatic strategy changes your bid continually according to market conditions and your valuation settings.
- A manual strategy lets you make one-time bids at a set quantity and price.

(For a complete description of Merkato strategies, see *Merkato Buyers' Reference Manual*, "Strategy Overview.")

**Note:** If the quantity (Mbps, for example) or time units (month, for example) displayed do not suit your needs, you can change the units. Select Units from the Selection pull-down menu. The Units box lets you use Kbps, Mbps, or Gbps, as well as minutes, hours, days, and months.