

# Merkato FAQ

Merkato"

## 1. What is Merkato?

Merkato is a unique software platform that dynamically prices, sells and delivers IP capacity in real time. IP network service providers, exchanges and neutral collocations, and hosting providers conduct or facilitate IP capacity based transactions with their customers and peers every day. For these transactions, Merkato helps service providers manage their network efficiencies, while staying profitable and competitive.

## 2. How does Merkato work?

Merkato enables two marketplaces for purchasing and selling bandwidth –a spot market and a reservation market. Merkato enables a "Spot Market", for the immediate consumption of bandwidth priced at market prices, and a "Reservation Market", in which a specified amount of bandwidth is reserved for a certain period of time at a specific price. These market mechanisms are patented algorithms that are thoroughly unique to Merkato.

Many transactions between service providers and their customers or peers are based on fixed contracts or archaic pricing habits. This results in providers' networks being under-utilized, over-provisioned, or otherwise inefficient. In addition, buyers of bandwidth are faced with inflexible contracts and costs that are not in line with their actual usage.

By enabling open real-time marketplaces, Merkato introduces flexibility into pricing transaction by allowing sellers of bandwidth to price their capacity according to demand, time of day, and quality. At the same time, bandwidth buyers can request and receive the very amounts of bandwidth they believe they will actually use. The transactions are acted upon in real time. This flexibility ensures services providers a healthy ROI (return on investment), and bandwidth purchasers a more satisfying buying experience.

# 3. Do I need to monitor Merkato constantly?

No. Merkato provides a Java-based interface and uses the intelligent agents to make the process as automated as you want it to be. The agents are configured to make intelligent decisions based on historical and projected needs. Buyers and sellers can adjust parameters through a local Java console at any given time, or allow them to run indefinitely after the initial configuration.



# **CORE MERKATO FEATURES**

#### 1. Automated intelligent agents:

A fundamental concept in Merkato is that of agents—independent decision-making software entities. Agents act on behalf of the users, modeling their needs and buying or selling intelligently on their behalf. The users can trust their software agents to be private, rational, and faithful.

#### 2. Web Portal:

The portal, part of the Merkato architecture, is an entry point to gain access to the agent applications, to get historical allocation data, and to obtain billing information. Each time a user configures a buying or selling agent, he or she enters through the portal page. The portal allows you to see into the Merkato database to check account information as well as historical information. Graphs of resource utilization are provided as well, to help the seller decide how much bandwidth to release to the marketplace.

#### 3. Network Service Provisioning (NSP):

The Network Service Provisioning is the overall service management platform of the Merkato architecture. It allows administrators to create policies and models for such areas as network elements, resources that the seller will make available (such as quantity, QoS characteristics, etc.), and means for controlling the run-time market allocations on the network device. The NSP also performs the resource management necessary to ensure that bandwidth allocated for reservations is preserved.

# WHAT'S NEW IN MERKATO V2.1?

A new feature, "Feedback Valuation", gives bandwidth buyers the ability to automate their bandwidth buying process using their automated agents, based on their most recent allocation and utilization data. Now, by using traffic data to direct agents buying behavior, buyers can automatically purchase bandwidth based more on actual usage rather than educated guesswork or speculation.

An enhanced Web interface for the Portal gives users additional tools to track their allocations, monitor price fluctuations in the marketplace, and keep track of their account and billing information.

Merkato now incorporates SSL (secure socket layer) for secure web-based information transfers.

A new "Allocation History" panel has been added, which makes it easier for buyers to monitor their allocations over time. It shows a chart of price, quantity, and utilization history.



# **CUSTOMER SEGMENTS AND APPLICATIONS**

Merkato benefits three primary customer segments: IP Network Service Providers, Exchanges /Neutral Collocations, and Hosting Providers.

#### **IP Network Service Providers:**

Let's start with carriers. Most large carriers, such as Tier 1 and Tier 2 providers, own their own networks, sell wholesale IP capacity, and have established contract customers who access or transit through their networks. IP network service providers can utilize Merkato to sell their excess capacity to their existing customers on a more "liquid" basis, by opening up additional capacity during off hours, at a more attractive price, or by operating a private exchange with a spot market. In this way, they can increase revenues by expanding upon their existing contracted business, while using their existing network infrastructure more efficiently.

#### Neutral Exchanges/Collocation Facilities:

Exchanges and neutral collocations are facilities that unite network service providers and buyers of IP capacity in a neutral environment. These facilities are recognizing the opportunity of attracting new customers by enabling real time transactions between many buyers and sellers. Many are in the process of implementing "liquid IP exchanges", as an offering of new value added services, over and above their traditional services of rack space, cross-connects and "hands and eyes" services. Merkato enables these liquid exchanges by providing an open marketplace driven by supply and demand.

IP transit and peering is another set of transactions between IP network service providers. Providers of various sizes must often send traffic through each other's networks to facilitate a complete end-to-end path for their customers. Merkato can price these routes based on volume of traffic, time of day, quality, and other parameters.

#### **Hosting Providers:**

Merkato enables a unique service to hosting providers, whose customer's typically content owners distributing entertainment, gaming, and streaming media, have unpredictable and bursty bandwidth requirements. Merkato creates a bandwidth-ondemand service, enabling the hosting provider to sell their customers bandwidth as needed, in real time, at market prices. This results in tremendous efficiency in the utilization of bandwidth, as well as a significant cost savings to the hosting providers.