

# A Distributed Email Broadcaster for eTracks.com

## *Customer Infrastructure Case Study*



### Introduction

eTracks.com is a leading email broadcasting service that manages the development and execution of email-based direct marketing campaigns. A rapidly expanding client base imposed new requirements for scalability and flexibility on eTracks existing broadcast technology. eTracks looked to Xetex to develop a highly scalable, distributed broadcast system that would be flexible enough to support the unique requirements of different marketing campaigns.

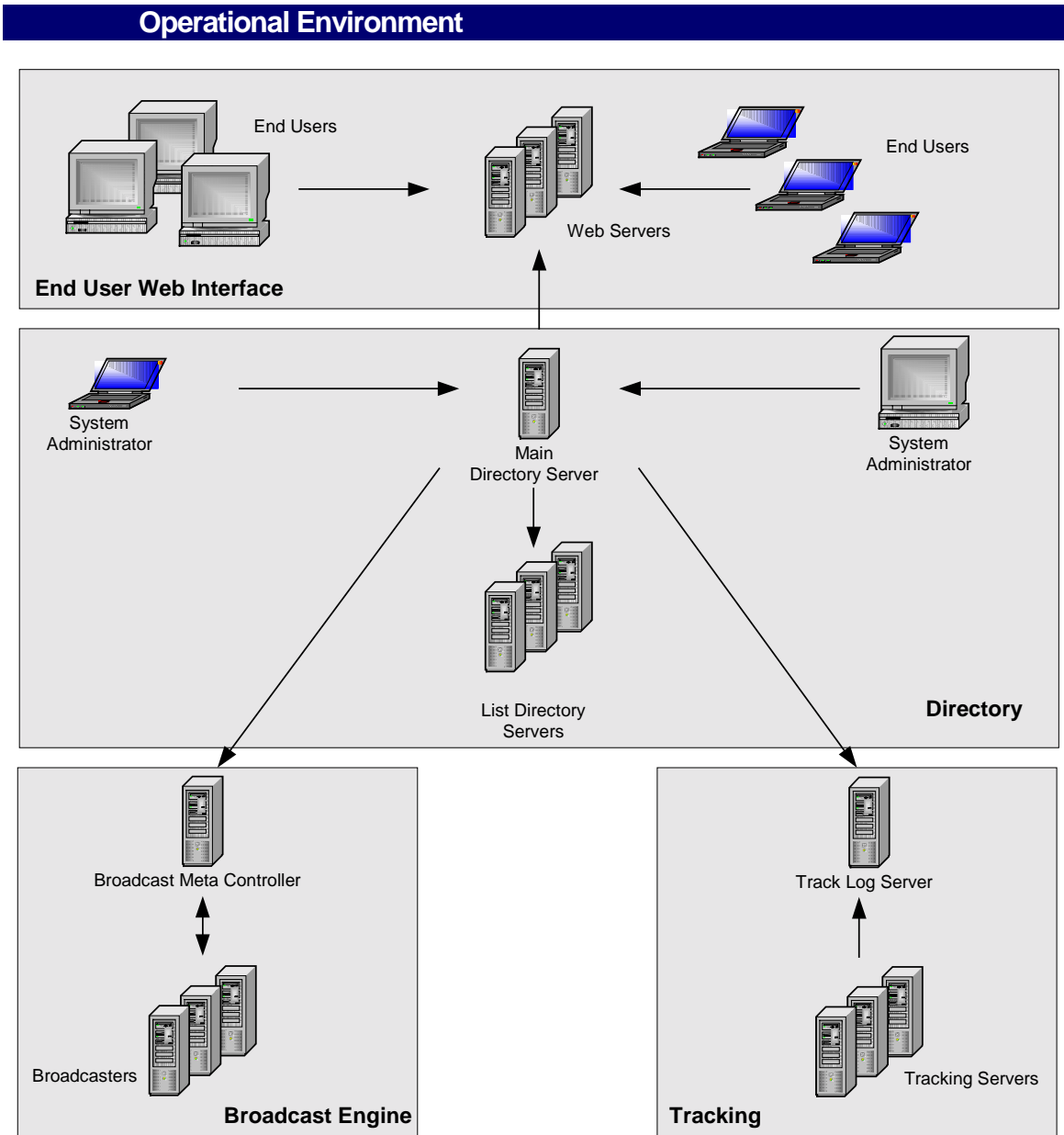
### Broadcaster Requirements

The broadcaster had to support the following major functional, performance, security, and scalability requirements.

- Each email had to be personalized based on attributes of the recipient such as name, sex, age, locale, interests, etc.
- The system had to support storage of up to 20 million piece lists, for hundreds of clients.
- The system had to support customer self-service, including functions for uploading letter templates, scheduling broadcasts, viewing reports, etc.
- The email sending capacity had to grow with the clientele, simply by adding new hardware.

### The Solution

Xetex designed and developed a distributed broadcast system based on a networked system of cooperating LDAP directories and java processes. The directories were used to store the client lists, and java processes provided generic worker threads that personalized and sent email. Personalization was accomplished by using email templates specified in XML and recipient information obtained via LDAP. A web front-end, secured by Xetex-developed authentication/authorization technology allowed the customer self-service applications to be deployed in a secure and scalable fashion. A back-end scheduling process with graphical controller provided fine-grained control over the allocation of workers to machines and scheduling of email broadcasts.



**Figure 1. Distributed Email Broadcast Infrastructure Components**

The system is designed so that instances of the web interface, directory, broadcast, and tracking processes may run on separate machines allowing flexible distribution of the components depicted in Figure 1. Alternatively, any set of components can be deployed on the same physical server depending on performance characteristics.

## Operational Statistics

Etracks has deployed a distributed directory system consisting of more than 10 cooperating LDAP servers containing demographic information for over 100,000,000 email recipients. Etracks is meeting its current customer demand to send 24 million emails per day using 1200 cooperating workers distributed across 4 broadcast nodes.

## Customer Benefits

- By combining XML and LDAP technologies Xetex provided eTracks the flexibility to address the variety of requirements posed by new marketing campaigns. This agility allowed eTracks to satisfy its existing clients and win new ones.
- By providing a scalable, yet coordinated broadcast infrastructure Xetex enabled eTracks to expand its capacity to meet increasing customer demand at minimal cost.
- By leveraging Xetex's directory, XML, and java development expertise, eTracks was able to go from concept to production in less than nine months.

"In the email broadcasting service business my customers are demanding more features, more scalability, and better performance and they want them now. Xetex was able to design and deploy a highly scalable, high performance, robust solution that eTracks can customize to individual customer requirements and they were able to deliver it quickly".

Jerry Sandoval

President and CEO, Etracks Corporation

## About Xetex, Inc.

Founded in 1994, Xetex, Inc. is a professional services firm that provides technology solutions to clients that wish to enable or engage in secure electronic commerce. With years of experience designing, implementing, and deploying directory and public key infrastructure (PKI) solutions, Xetex is able to provide its clients with a full range of professional services including software development, design, integration, project management, strategy, and education.

Xetex, Inc. maintains offices in San Francisco, California (Technology) and Austin, Texas (Corporate). Further information about Xetex can be obtained by contacting the company at the following address:

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