



Java and Electronic Commerce

Shannon L Byrne, B.Comm., B.Sc., M.C.Sc.

Software Development Manager

Presentation Outline

- Introduction
- The Buzzwords
- PSI's Experience
- Java - a First Class Language
- *Full-blown* Java Based Commerce Applications
- Conclusion / Questions / Comments

Introduction

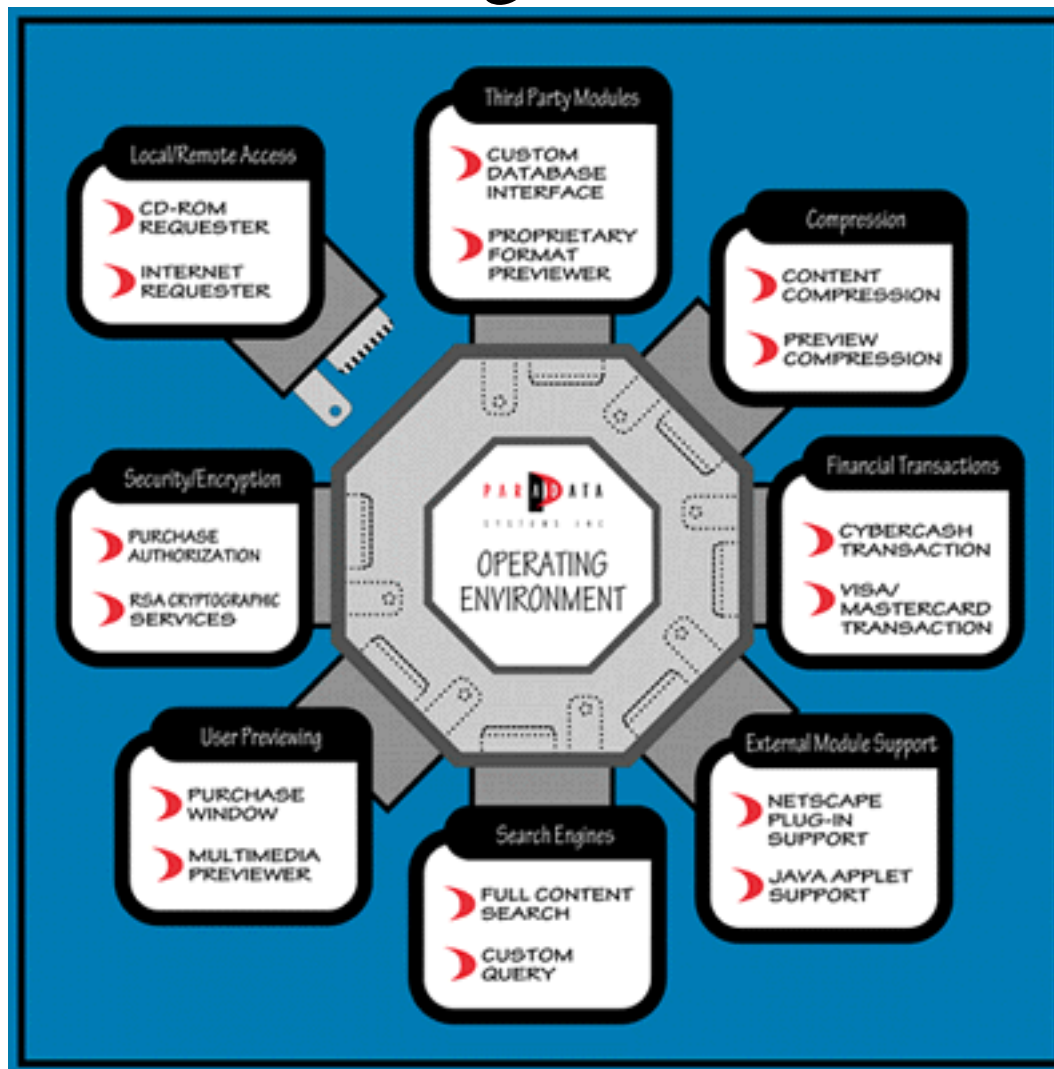
- Paradata Systems Inc.
 - Squamish, British Columbia.
 - Three year old start up.
 - Small - 12 people.

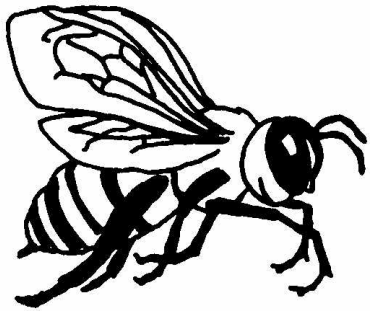
Introduction

- Information Delivery System
 - Secure individual pieces of data.
 - Provide the way to browse/shop for data.
 - Provide a product code for items selected.
 - Provide a way to access and copy the data to the hard disk.
 - CD-ROM; Internet; CD-ROM/Online Hybrid
 - Mac and Windows95 and NT

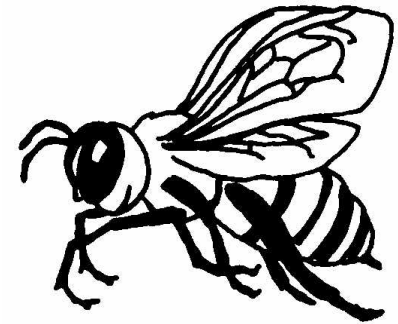
Introduction

- IDS's Core Technologies





The Buzzwords



- Java
- Electronic Commerce



Java's Features:



- Simple
- Pure Object Oriented
- Architecture Neutral
- Portable
- Multi-Threaded
- Secure
- Distributed



Java Eliminates:



- pointers
- structs
- operator overloading
- need to free memory
- typedefs
- unions



Java Provides:



- Automatic Garbage Collection
- Exceptions
- Null Pointer Checking
- Array Bounds Checking
- Portable Single Compilation



Electronic Commerce



- Electronic - Operating or produced by the movement of free electrons, as in radio or radar.
- Commerce - the buying and selling of commodities: TRADE.
- \$ Electronic Commerce - a way to use an electronic medium to buy and sell goods.

Essentials of Electronic Commerce



Provide a way to browse/shop/previews items for sale.

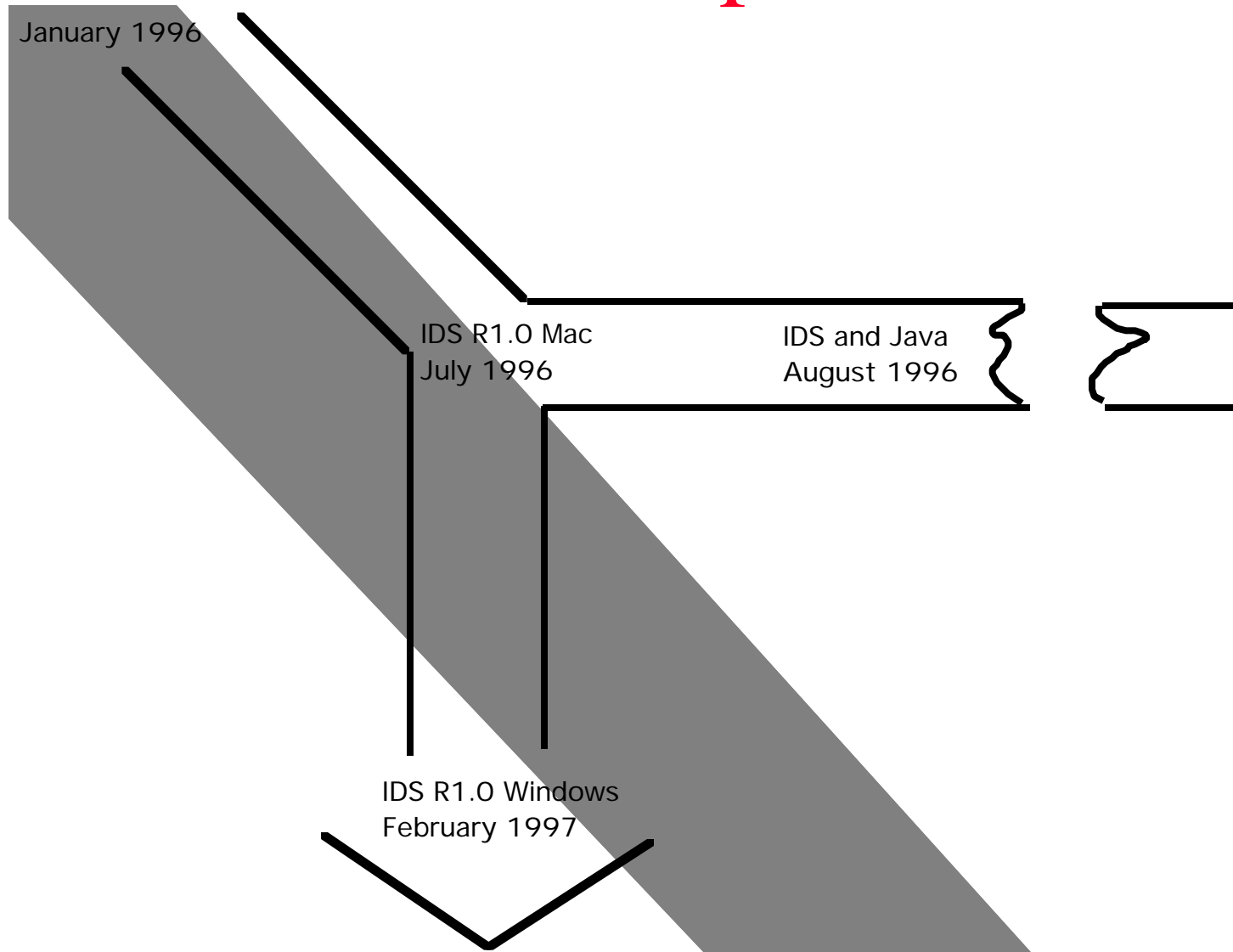


Provide a mechanism to carry out the financial transaction process.



Provide a mechanism to allow access to the items purchased.

Paradata's Experience:





Java - a first class language....

Components Required:

- Communication Vector Support
 - Network
 - Fax
 - Phone
- Security Infrastructure
 - Encryption Algorithms
 - Digital Signatures
 - Hash Algorithms



Java - a first class language....

Components Required:

- Identification
 - Reliable and secure user identification
 - Reliable and secure user authentication
- Randomness
 - Random number generator Hardware Interface



Full-blown Java Based Commerce Applications



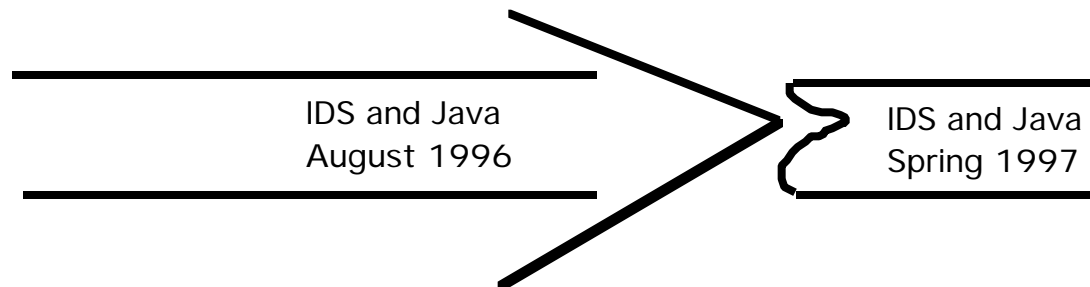
Proposal for an open standard for the development of full-blown Java based electronic commerce applications:

- Must work within the constraints of the current Java language specification.
- Will not require native methods.
- Implementation should not require any alterations to the Java language.

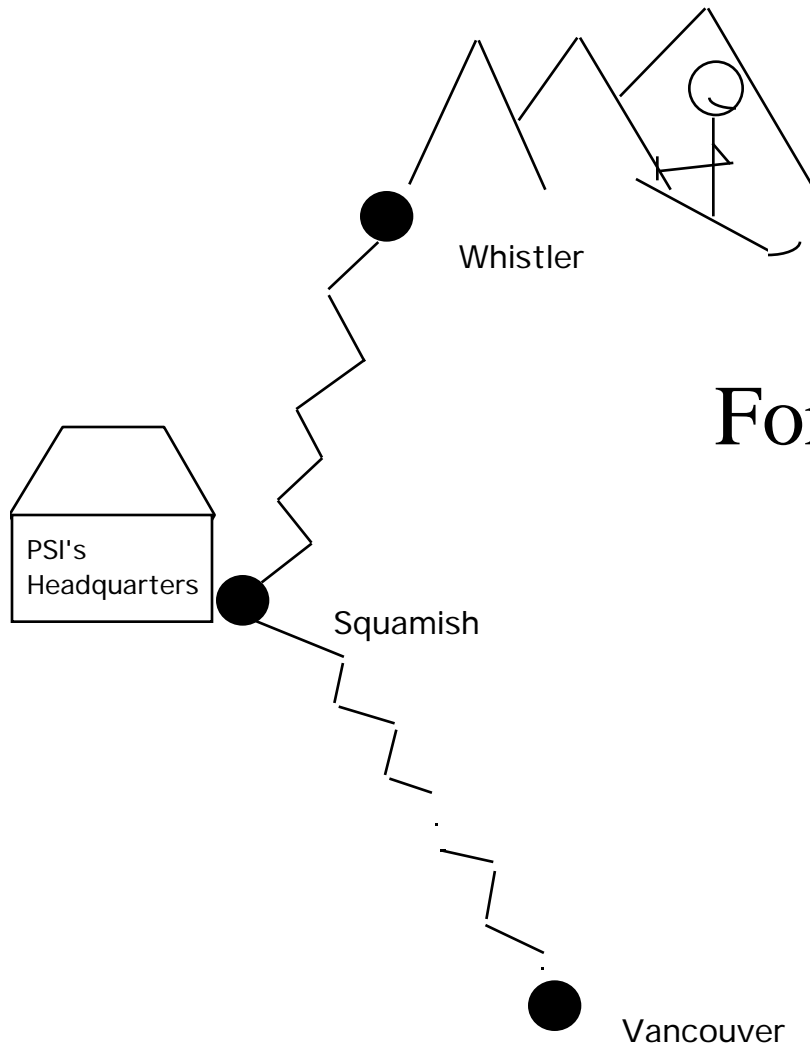
Conclusion



- Maturity
- Infrastructure
- Tools



Questions/Comments



For More Information:

Shannon L Byrne

Software Development Manager

Paradata Systems Inc.

sbyrne@paradata.com