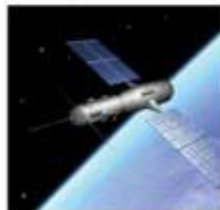




Delivering Maritime Communication Solutions.

- FastLink
- ShipMail
- Ship Forms
- ShipAV
- ShipLog
- CrewVoice
- Crew Mail



**Wherever.**

**Whenever.**

- Satcom Solutions
- Mobile Messaging
- Expert Support 24/7
- Network Security
- Cost Control
- Seafarer Welfare
- Network Optimization

# Managing the Broadband Link

Digital Ship USA  
Stamford, CT October 2009

# World-Link Communications: Twenty Years of Innovation in Maritime Satellite Communications



**1989**

Founded with the mission to serve the maritime shipping industry



**2001**

ShipMail nominated for the Lloyd's Award in Innovation in Ship Communications



**2004**

The first pre-paid email & Internet access card for Inmarsat terminals



**2006**

Winner of the Seatrade Award in the "New IT Applications for the Shipping Industry" with Ship Forms

Launched ShipAV, the first anti-virus protection for the maritime market

Recognized for Technical Innovation at the Seatrade Award



Certificate # 6028QMS001

**2007**

ISO 9001:2000 certification



**2008**

CrewMail nominated at the 2008 Seatrade award in the category of "Technical Innovation"



**2009**

Launched FastLink  
Launching Ahoy-Ahoy

## Innovators in Maritime Technologies Applications

World-Link Communications Presents:  
**The Maritime IP Gateway Solution**



## What a Company Needs from its Broadband Connection:

Whether the circuit you are on is L, Ku or C band, you have contracted for a specific amount of bandwidth for your broadband connection and you want to make sure you can allocate that bandwidth for many uses.

You want to maximize your existing bandwidth capacity before upgrading and purchasing additional equipment. You want to push as much data as possible through the pipeline.

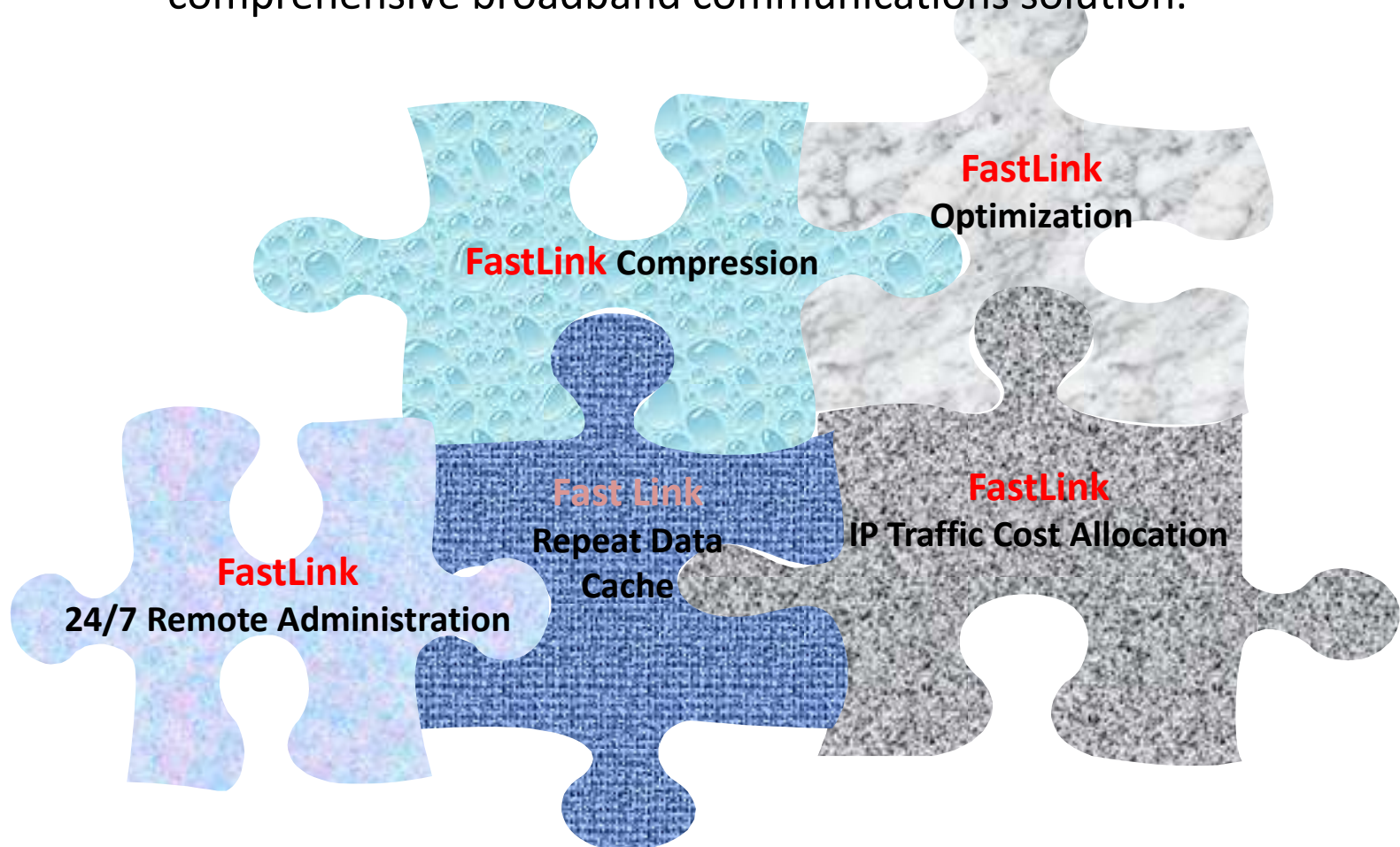
Additionally, you want your broadband connection to send and receive data as fast as possible.

IP compression and acceleration is fundamental in optimizing your broadband connection because it allows you to accommodate ever increasing service demands without having to invest in additional bandwidth.

# Bigger and faster broadband pipeline = \$\$\$

# **FastLink: The Maritime IP Gateway Solution**

No matter how many pieces your communications puzzle has, World-Link can help you put them all together. **FastLink** is more than just client software, **Fastlink** is a comprehensive broadband communications solution.

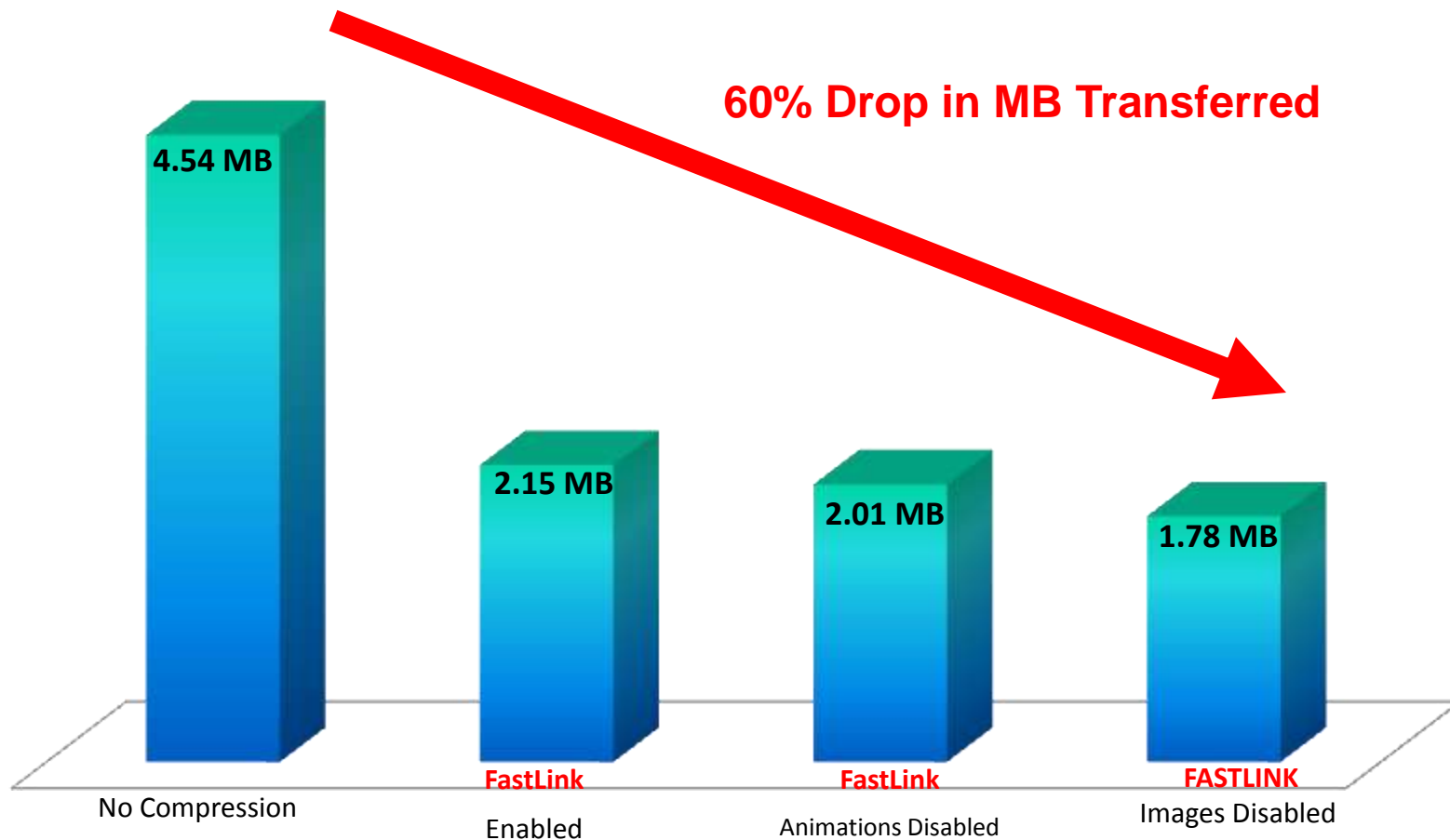


# FastLink Compression

**FastLink** maximizes bandwidth by squeezing more into the pipe.

FastLink is robust, on- the-fly compression that works with any data type

## Data Transferred During FastLink Performance Test Sessions



## **FastLink Repeat Data Cache**

### **Features**

- Cache works for both incoming & outgoing transfers
- Only transfers changed file data
- Completely transparent to user

### **A Repeat Data Cache Example**

#### **Bandwidth used to transmit this presentation:**

- First send: **613025 bytes**
- Re-send with small image added: **19960 bytes**

Assuming that this file had to be **sent 5 times** back and forth to be completed, the savings in bandwidth would be over **3MB**.



## **FastLink Optimization**

Speeds loading time over high-latency satellite connections. Satellite communications are characterized by latency and inefficiency. Whether it is VSAT , FBB or Iridium, optimization of the satellite link is critical to the successful implementation of any broadband technology onboard the vessel.

### **FastLink optimization provides:**

TCP Protocol optimization minimizing the latency satellite latency by:

- Pre-fetching all content on the shore, and pushing at once to the mobile user
- Reducing the time spent waiting for acknowledgement packets to travel the satellite link
- Reduction in redundant data transfers

## FastLink IP Traffic Cost Allocation

World-Link Communications is the ONLY SERVICE PROVIDER that offers you a detailed breakdown of ALL internet usage onboard. Every month, the master will receive an invoice with a breakdown of all traffic coming out of his vessel, including Date, Time, Destination IP & Hostname, Service, and Bytes used.

### FASTLINK END USER RECORDS

#### (Sample Report)

Date	Time	From IP	To IP	Bytes	Port	User	Website Address
2008-10-06	15:30:00	10.0.1.140	74.125.47.104	876	80	Tim	yw-in-f104.google.com
2008-10-06	15:30:09	10.0.1.140	128.128.76.85	876	80	Tim	oldwww.whoie.edu
2008-10-06	15:30:32	128.128.76.85	10.0.1.140	20588	3304	Tim	oldwww.whoie.edu
2008-10-06	15:31:44	10.0.1.140	206.16.247.139	449	80	Tim	sn-web01.sciencenews.org
2008-10-06	15:32:09	10.0.1.140	92.122.209.26	1427	80	Tim	a92-122-209-26. deploy.akamaitechnologies.com

Account	Data
Captain	\$130.18
C. Eng.	\$ 65.00
1 <sup>st</sup> . Officer	\$ 76.54
Crew	\$390.00

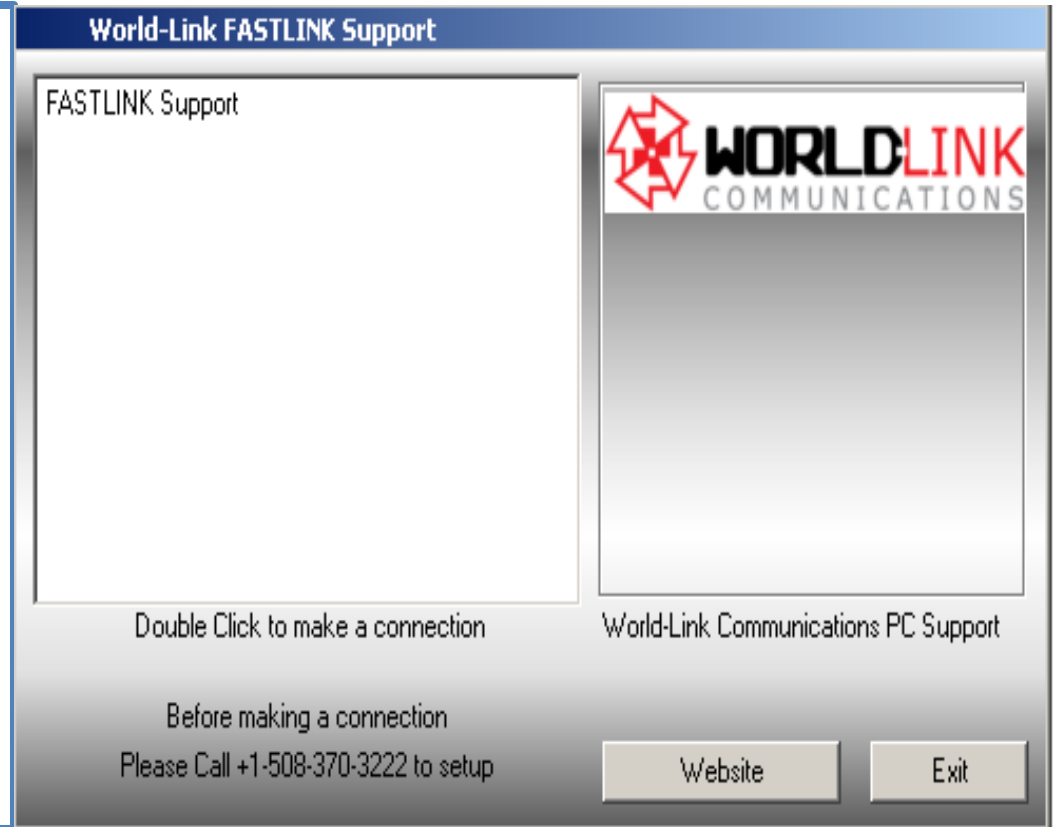
Billing Party	Originator	Username	Data Use \$
J. Doe	Crew	doej	\$ 97.50
F. Andrade	Crew	andrdef	\$ 120.43
A. Smith	Crew	smitha	\$ 34.98
C. Chong	Crew	chongc	\$ 55.30
D. Perez	Crew	perezd	\$ 81.79
<b>TOTAL</b>			<b>\$ 390.00</b>

## FastLink 24/7 Remote Administration


### Remote Administration Interface

#### Features

- Simple to use – No complicated installation or setup required
- Low bandwidth – .5MB for a 5 minute session
- No searching for and arranging in-port technicians
- Less costly downtime – No need to wait for a port stay
- Problems solved by World-Link's expert technicians



## FastLink Benefits

- 
- Reduces cost of bandwidth by 60-80%
  - Decreases Load Times 75%
  - Universal terminal compatibility (FBB or Fleet, Open Port, VSAT)
  - Transparent to the user
  - Improves Usability with Optimization
  - Secures the connection between the end-user's computer and server
  - Increases User Productivity
  - Enhances User Experience

All this adds up to Time & Money savings  
while delivering a fast, secure and  
enhanced user experience

# FastLink Demonstration



**WORLDLINK**  
COMMUNICATIONS

World-Link Communications Presents



**FastLink**

The Ultimate  
Service  
to  
Empower your IP  
Broadband Communication Link

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