



# M7 Series Embedded IP Optimization OVERVIEW



WAN and Backhaul Optimization



**Maximum Wireless Capacity  
Increased throughput and reduced cost**



## Introduction

Embedded Xiplink (XipOS) delivers the most advanced satellite based acceleration and optimization in the industry, and is available as an easy-to-install software option into any Datum Systems M7 series modem that incorporates an I7 Plus Advanced IP Interface.

Our integrated optimization core assures proper throughput at a lower cost, by utilizing existing modem hardware for a complete one box solution. For small and medium sized sites with access speeds from 400 Kbps to 30 Mbps, the Xiplink operating system is factory or user installed via logical GUI templates, thus minimizing impact to the operations staff. Xiplink's wireless link optimization supports thousands of simultaneous TCP sessions and dramatically increases effective throughput to the customer, lowers bandwidth capacity requirements and improves the end user experience. Datum's implementation of the embedded XipOS is fully compatible with the complete line of XipLink external appliances.

### SCPS-TP Protocol Acceleration

*Fills the high latency WAN link to capacity*

- SCPS-TP based TCP acceleration
- Inter-operable PEP (I-PEP) compliant

### Advanced Quality of Service (QoS)

*Shapes traffic and applications on the WAN*

- Intelligent traffic shaping
- Hierarchical QoS classes
- Understands Link State
- Configurable committed, maximum rates

### Header and Payload Data Compression

*Exceeds the WAN bandwidth*

- Dramatic bandwidth gain, as high as 30% to 200%
- Reduces the number of packets
- Bandwidth reduction for VoIP, Skype & small packets using XipLink Real Time (XRT)

### Internet Optimizations

*Compress and control explosion of internet traffic*

- XipLink Hub Optimizations (XHO) delivers lossy & Gzip lossless compression
- Web object caching

### Byte Cache

*Dramatic data reduction on multi-pass traffic*

- Effective on viral videos, Internet content, etc.
- Up to 80% reduction from most traffic types including UDP and TCP

### Advanced Quality of Service (QoS)

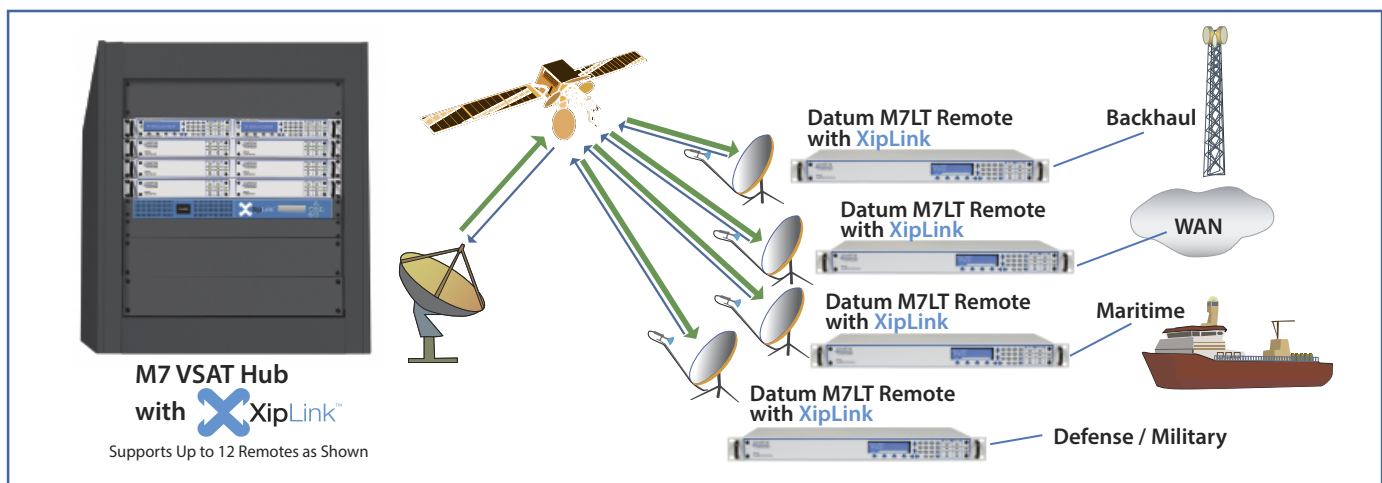
*Controls growth in cellular TCP & UDP traffic*

- Supports 2.5G, 3G and 4G
- 30%+ traffic reduction

### Advanced Features

*Optimizes unique formats and tunneled traffic*

- Transparent VLAN Support
- GRE Tunnel Traffic Optimization



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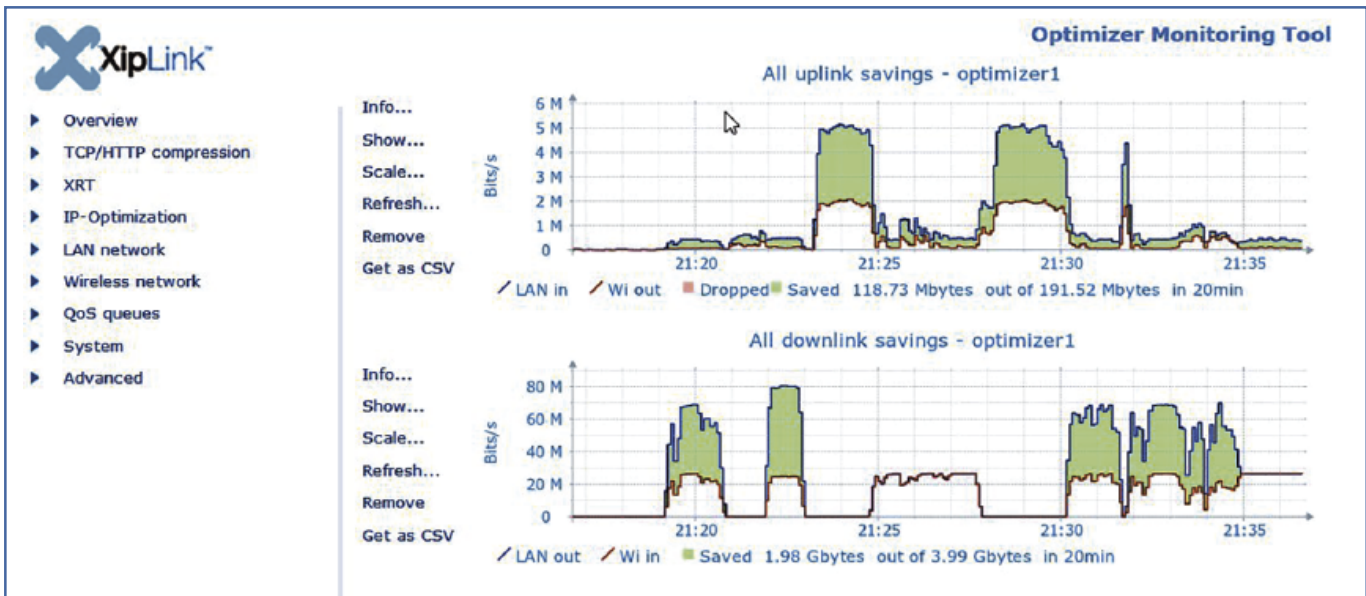


## M7 Based Xiplink Operating System (XipOS)

XipOS achieves a high rate of bandwidth efficiency by providing TCP acceleration (SCPS) and then layers-on several wireless link optimization solutions including payload and header compression schemes, packet coalescing, sophisticated web object and byte cache techniques, web optimizations, and compression of 2G, 3G and 4G/LTE cellular traffic. To increase overall effectiveness, XipOS has fully integrated a class based weighted fair queuing QoS engine.

### Xiplink Embedded Options:

Mode	Bandwidth (In + Out)	Max. Opt. Sessions	TCP (SCPS) Acceleration	Payload/Header Compression	Web/Byte Caching	Cellular Compression	Packet Coalescing
I7XE-5M	5 Mbps	500	Yes	Yes / Yes	-	-	Yes
I7XE-5MC	5 Mbps	500	Yes	Yes / Yes	Yes / Yes	Yes	Yes
I7XE-10M	10 Mbps	2,000	Yes	Yes / Yes	-	-	Yes
I7XE-10MC	10 Mbps	2,000	Yes	Yes / Yes	Yes / Yes	Yes	Yes
I7XE-30M	30 Mbps	4,000	Yes	Yes / Yes	-	-	Yes
I7XE-30MC	30 Mbps	4,000	Yes	Yes / Yes	Yes / Yes	Yes	Yes



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