

Understanding and Improving the ROI of VSAT Networks



4NINES

Teleport operators and technology providers share insights on achieving greater efficiencies and reduced costs in the deployment of VSAT networks for multiple markets.

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World Teleport Association

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Foreword

The first commercial VSAT systems went on the market in the 1980s, and since then, VSAT technology has proven a durable, flexible platform capable of evolving as speeds, throughput and applications have all grown. In fact, the next few years could be some of the most exciting in VSAT development as our industry continues to innovate to support HTS across multiple frequency bands and new LEO deployments.



One thing that has not changed, however, is customer demand for the highest-quality service at the lowest-possible price. That challenges service providers to manage technology, network design, installation and maintenance for maximum efficiency. The VSAT providers interviewed for this report are looking for ways to reduce labor time and costs of installation and maintenance in the field and in the NOC. And they are looking to achieve this with automated and robust solutions that can reduce both capex and opex while increasing service quality.

Integrasys' Satmotion Pocket is one technology that has proven its ability to save time. It simplifies satellite pointing, minimizes line-up time, reduces NOC support requirements and automates commissioning. With a range of automated and guided procedures, it allows minimally skilled operators to get remotes installed fast and accurately. For more information, visit <http://www.integrasys-space.com/satmotionpocket>.

This report shares some keen insights from managed VSAT network providers and sheds light on installation challenges and costs, including the significant hidden costs in the deployment of VSAT networks: costs that INTEGRASYS's Satmotion Pocket helps to reduce. We hope that the information in the WTA has collected in this report will help the community of managed VSAT network providers to better understand the potential for improving ROI and thereby help the industry deliver even greater value to customers.



Alvaro Sanchez Garcia Viedma
Sales & Marketing Director
INTEGRASYS
info.sales@integrasys-sa.com

Introduction

VSAT is a fundamental technology for teleport operators serving data and voice customers. Beyond serving as basic hubs for VSAT networks, teleports provide complex managed services on VSAT platforms and integrate them with fiber, wireless and other transmission paths. A teleport may manage dozens or hundreds of individual networks, each comprising anywhere from 20 to 2,000 nodes with its own specific configuration, bandwidth requirements and mission-criticality. Success in this demanding business requires economies of scale: the ability to design, install, operate and maintain networks with the most efficient and cost-effective mix of personnel, equipment and bandwidth. Savings in any of those areas produce a better return on investment for the operator and, if properly implemented, a more efficient and higher quality operation for customers.

When asked about VSAT network costs, most operators immediately think of satellite bandwidth. This can certainly be optimized through better technology, and multiple technology vendors regularly release new advances. The capex costs at the hub and remotes are also easy to calculate. But the running costs of a network include everything from field installers and satphone costs to travel and hub support staff and are frequently left out of ROI calculations. In *Understanding and Improving the ROI of VSAT Networks*, WTA shares the insights and experiences of teleport operators and technology vendors in achieving greater efficiencies and reduced costs, both capex and opex. It also seeks to improve profitability for VSAT network operators by generating a more robust and comprehensive cost model for network installation, including the often-hidden costs that can be reduced through careful planning and process management.

Methodology

Understanding and Improving the ROI of VSAT Networks is based on a mix of qualitative interviews with teleport operators and quantitative metrics provided by those operators on the cost aspects of network deployment and maintenance. This report includes the major conclusions arising from the interviews and the

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The Four-Nines Project

The Four Nines Project is an ongoing effort by World Teleport Association to promote best practices in teleport business, operations, technology and management. It is named for the technical standard in a satellite or terrestrial transmission of 99.99% availability.

average of cost factors for network deployment and maintenance provided by operators, along with a basic methodology for cost calculation.

For this report, WTA interviewed managed VSAT network providers that serve oil and gas, and retail such as banking, corporate enterprise, intranets, energy markets, maritime, governments, NGOs, and satellite operators.

The wide array of applications they support include intranets, internet access, video streaming, retail transactions, SCADA (supervisory control and data acquisition), VoIP, disaster recovery, utilities, airline reservation systems, health and education networks, transportation networks, remote wireless data backhaul, mining connectivity, machine-to-machine communications for asset tracking, and more.

They operate VSAT networks in urban, suburban and rural locations across the Americas, Europe, Asia, the Pacific Rim, and Middle East, as well as offshore platforms, cruise ships, and commercial ships moving around the world. Contributors' businesses ranged in size from small-market independent operators to global providers with scores of teleport partnerships around the world.

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David Andres

Business Development Manager
Santander Teleport, Spain

Daniela Albernaz

Technical Director
Telespazio Brasil S.A., Brazil

Mohosin Rob Chowdhury

Deputy Managing Director
ASIX Asia Satellite Internet
Exchange Ltd, Hong Kong

Garrett Hill

CEO
X2nSat, USA

Dr. Matthias Riede

Executive VP Technical
Operations
Signalhorn Trusted Networks,
Germany

Mike Scotto

SVP Business Development
Globecomm, USA

Leanna Smith-Ryland

CEO
Hawaii Pacific Teleport, USA

James Trevelyan
Sales & Account Management
Director
Arqiva Satellite & Media, UK

Steven Wheelis
Chief Engineer
SpeedCast, USA

Hank Zbierski
Chief Catalyst
Isotropic Networks, Inc., USA