ASSET (Alert Sending to Satellite-Enabled Tablet), Yazmi Solution for All Hazards Early Warning
The satellite receiver module is integrated with Yazmi tablet and housed within a USB Dongle. It connects to a Desktop, Laptop, Netbook or Tablet with a USB input port.
Digital Broadcast Satellite Delivering Information Directly to Low Cost, Portable, Addressable Devices
Disaster Alerting, Preparedness, and Response, Reusable in Other Sectors
Last Mile Hazard Warning System (HazInfo Project)

National Early Warning Center

Hazard Information Hub

Domestic & International Sources

ICT Networks

ERP-C(n,1)

ERP-C(n,2)

ERP-C(n,m)

COMMUNITY

Sarvodaya Community Disaster Management Center (SCDMC)

Communications Providers

Sarvodaya Communities
Terminal Devices Performance and Conclusions

Effectiveness of Terminal Devices for Cliques of Parameters

- AREA+FXP: 0.86
- AREA+RAD: 0.86
- AREA+MOP: 0.86
- VSAT: 0.05
- FXP: 0.64
- RAD: 0.05
- MOP: 0.35
- AREA: 0.86

Effectiveness Measure
DAMB-R2 was Common Alerting Protocol-enabled

<table>
<thead>
<tr>
<th>Interface</th>
<th>HIH Monitor issued CAP Message</th>
<th>Receiver Device and {Medium}</th>
<th>ICT Guardian received Message elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNY Internet Browser application (AREA)</td>
<td>All sub elements in &lt;Alert&gt;, &lt;Info&gt;, &lt;Resource&gt;, &lt;Area&gt; segments, and message in &lt;Language&gt;en only.</td>
<td>Sat-Radio AREA – B {Text}</td>
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<td>&lt;Certainty&gt;observed</td>
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<td>&lt;Event&gt;A SEVERE CATEGORY 4 CYCLONE … {total restricted 250 characters}</td>
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<td>&lt;Language&gt;all… {no size restriction}</td>
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Sat-Radio AREA – B {Audio}
Who We Are

• Founded in 2010 by the pioneers of Satellite Radio
• Acquired $500MM + satellite infrastructure from WorldSpace Corp.
• Own two orbiting L-Band satellites: AfriStar & AsiaStar
• Secure satellite uplinks in UK, UAE, Australia, China, South Africa
• Rights to broadcast over ITU satellite radio frequencies in 127 countries

Yazmi reaches 5 billion people across Asia, Africa, Europe & the Middle East
L Band Satellites

- Alcatel/EADS E2000+ geostationary L-Band broadcast satellites (1467 MHz to 1497 MHz)
- Three beams per satellite, each beam covering 14 million km²
- Projected useful life beyond 2020 in inclined orbit
Architecture/ Features

- **Satellite Based**: Satellites fill communication gaps where terrestrial infrastructure is damaged, overloaded, or non-existent.

- **Scalability**: Network can grow without fear of traffic congestion and can accommodate any numbers.

- **Portability**: Antenna and device are compact, light and can easily be carried.

- **Speed to implement**: In-orbit Satellites and proven solutions. Ready for roll-out.

- **Flexibility**: Delivery of Data (Maps, Images, Text, Audio, Video) to predefined groups and can be encoded for delivery.

- **Selective Dissemination**: One-To-Many paradigm. Addressable by groups/tiers. Recipients do not have access to undesirable/unwanted content.

- **Weather independence**: L-Band Solution is weather immune, with less interference from other sources.

- **Broadcast**: 
  - Multiplexed Broadcast Channels (Up to 256 Kbps)
  - Local Broadcast Channels
  - TDM & FDM Uplink (X-Band)

- **ASSET Features**: 
  - Onset of alert is indicated by a computer-generated siren
  - Displays all the alert parameters (mandatory & optional)

- **Alcatel/EADS E2000+ geostationary L-Band broadcast satellites (1467 MHz to 1497 MHz)**
- **Rights to broadcast over ITU satellite radio frequencies in 127 countries**

- **AFRIStar/AsiaStar**

- **CAP-formatted text and Alert-related audio in local languages**

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Yazmi Strengths

• **Device**
  – Affordable for every individual
  – Reliable power with extended battery life
  – Can be carried outdoor as well as home
  – Customized for use in other sectors like Education and Healthcare
  – Easily set up and maintained by the individual

• **Connectivity**
  – No Internet required
  – Anytime and Anywhere
  – Optimized for content distribution
  – Supports Asynchronous and Synchronous modes of Delivery
• Yazmi has the only multicasting satellite constellation serving territories outside North America

• Yazmi offers a high quality end-to-end solution for All Hazard Warning and Mitigation at low cost

• Extensive management experience and high barriers to entry