



Broadband VI

The USVI's choice for innovative internet service delivery since 2002



Our Business

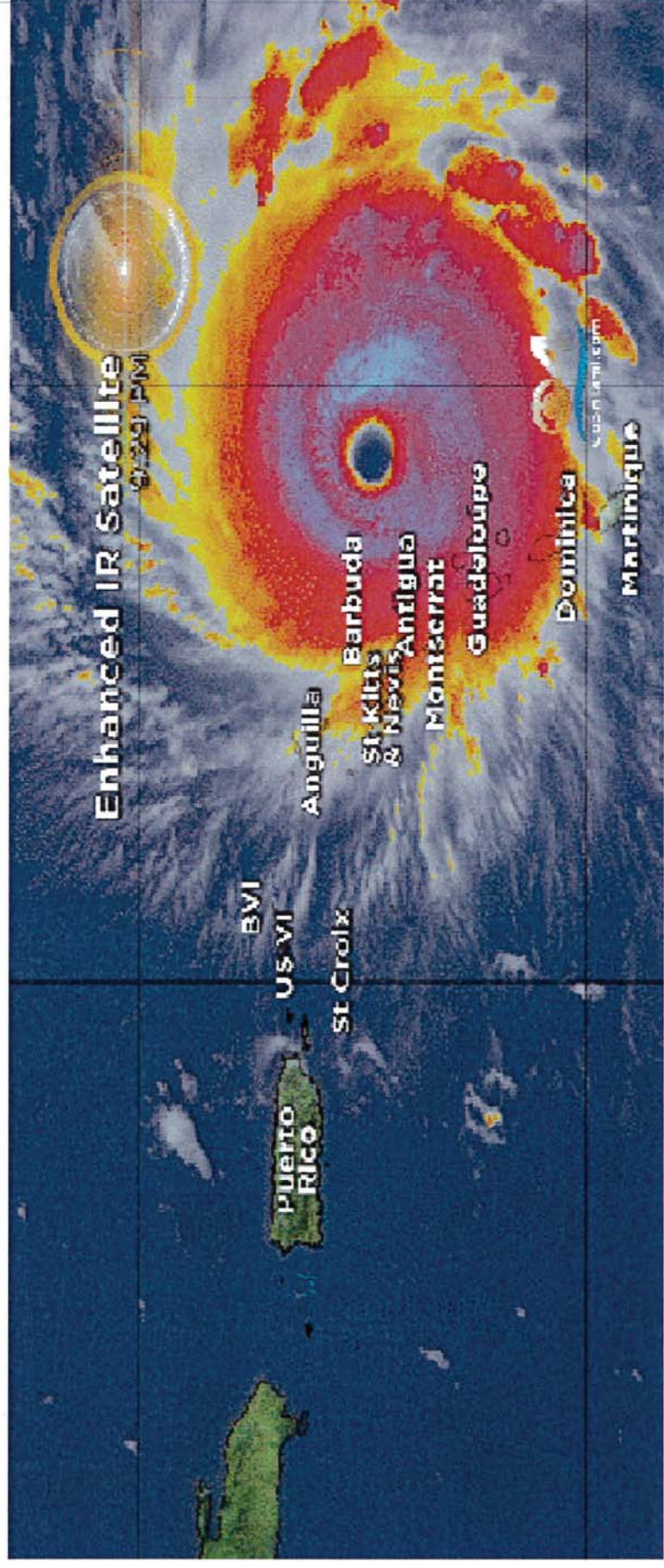
- **Founded in 2002, wireless and fiber/wired infrastructure deployed**
 - internet, WAN services, data/voice/media
- **Top 2 ISP: 9,000+ subscribers, 30%+ of market**
 - Residential, commercial, academic, public sector
- **Strategically aligned**
 - Open access middle mile fiber, other carrier networks → uptime
 - Economic/workforce development initiatives → community
 - VI government (DPW, GVI) → territory strategies
- **Success through private investment, customer focus, and planning**



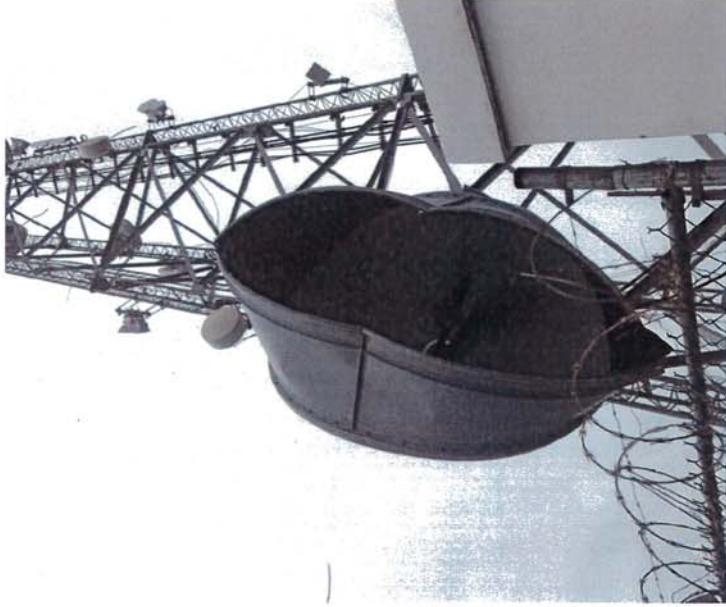
Our Network

- **Reach/coverage: 95%+ service area**
- **Resilient: designed for failover**
 - Power: utility, generator, battery/solar (multiple sources)
 - Backhaul: sub-sea fiber (discrete paths)
 - Middle mile: licensed spectrum, open access fiber (multiple carriers)
 - Last mile: next gen/5G CPE (to 2.5 Gbps), fiber w/wireless (N+1 failover)
- Trusted: post-2017 hurricanes (Cat 5 Irma and Maria), surge in demand as Virgin Islanders “cut the cord” (discontinued ILEC POTS and cable TV) and migrated to Broadband VI for converged services.

Cat 5 Hurricanes Irma & Maria, Sept 6 & 18, 2017



Irma/Maria Damage



Response to 2 Cat-5 Hurricanes (in 12 Days)

- Service restoration:
 - **First service within days; 60%/3 months; 80%/6 months, 100% in 8 months**
- Triage/priorities:
 - Food (supermarkets – essential supplies, SNAP, credit cards)
 - Fuel (gas stations – vehicles/generators)
 - Supplies (hardware stores – building materials for repairs)
 - Medicine (doctors/pharmacies/hospitals – medical care)
 - Logistics (airports/seaports – movement of people/materiel)
 - Funding (insurance adjusters – claims processing)
 - Other businesses/residential

Response to 2 Cat-5 Hurricanes (in 12 Days)

- Mutual aid:
 - Our volunteers helped rebuild, used personal boats to move critical supplies inter-island, and assisted competing providers at tower sites
- Network upgrades:
 - Phased in expanded investment in fiber interconnection
 - Positioned wireless CPE for 100 Mbps/1 Gbps+ connectivity
 - Cambium 450m/b (100 Mbps), IgniteNet (2.5 Gbps), SIAE 80HDX (10 Gbps)
- Lessons Learned:
 - Like Miami-Dade building code standards which arose in response to hurricane damage, higher standards for resilience must be applied to the buildout of new (or restoration of existing) network infrastructure in the USVI. Rebuilding non-resilient networks wastes resources and will fail.



Connect USVI Fund – Opportunities

- After ~30 years of high-cost support to the Territory's ILEC, funds can be redirected to supporting a network that can survive a storm
- Close the Digital Divide: provide opportunities for Virgin Islanders through better connectivity (including before, during and after a storm)
- Economic development/diversification: attract globally-competitive businesses with fiber-based Gigabit speeds, create demand-driven employment and workforce development in knowledge-based industries

Stage 1 - Broadband VI

- Awarded >\$931K in Stage 1 funding
- Became an ETC on September 5, 2018
- Paperwork filed with USAC
- Using support to supplement ongoing network restoration, expansion and improvement

Stage 2 Proposal – 2-Step Application Process

- Step One: Basic eligibility
 - Must be a provider of voice and/or broadband services in the USVI prior to Hurricanes Irma and Maria
 - Designated ETCs only
 - Demonstrated ability to construct a broadband and/or voice network in the USVI
 - Financially qualified: audited financials, letter of credit or performance bond
- Step Two: Comparative criteria – applicants meeting basic eligibility requirements will have applications considered on a comparative basis

Stage 2 Proposal – Comparative Criteria

- Selection on a price-per-location-served basis is problematic, due to difficulty in ascertaining USVI “locations”
 - Many residences and small business structures were destroyed by the hurricanes
 - Significant displacement of population away from the USVI
 - USVI relies on historic (pre-US) “estate” address nomenclature, not traditional street addressing
- **Recommendation: selection based on a 100-point scoring system for:**
 - a) network resiliency and restoration,
 - b) network deployment timetable, and
 - c) network performance

| Category | Points |
|------------------------------------|------------|
| Network Resiliency and Restoration | 50 |
| Network Deployment Timetable | 20 |
| Network Performance | 30 |
| TOTAL | 100 |

Stage 2 Proposal – Resiliency/Restoration (50 pts*)

- Most important comparative category due to the USVI's susceptibility to natural disasters
- Favors buildout plans featuring underground elements that a) can survive a major hurricane (e.g., fiber in the ground), and b) offer discrete (e.g., multiple) network and path diversity for resiliency
- Buildout plans which rely on exposed elements (e.g., aerial fiber on poles) should be disfavored

*** Up to 10 additional points** awarded for demonstrated ability to restore 80%+ services within 180 days

| Deployment Technology/ies | Resiliency/Diversity | Points |
|--|---|----------------|
| Underground fiber | Discrete Networks Discrete Paths None | 40 30 20 |
| Underground fiber middle-mile + fixed wireless last-mile | Discrete Networks Discrete Paths None | 25 15 5 |
| Aerial fiber | Discrete Networks Discrete Paths None | 15 5 0 |

Stage 2 Proposal – Timetable (20 pts)

- Not as important as resiliency/restoration; a network poorly serves its community if it cannot a) withstand a hurricane, or b) be quickly restored following a disaster
- Should favor buildout timetables that commit to an accelerated 6-year milestone schedule

| Time Period | Build-out % |
|-------------|-------------|
| Year One | 0% |
| Year Two | 0% |
| Year Three | 40% |
| Year Four | 60% |
| Year Five | 80% |
| Year Six | 100% |

Stage 2 Proposal – Performance (30 pts)

- Basis for award – the same speed tiers used with the Connect America Fund Phase II program, with some differences in point values
- Plans which include high-latency elements should be disfavored

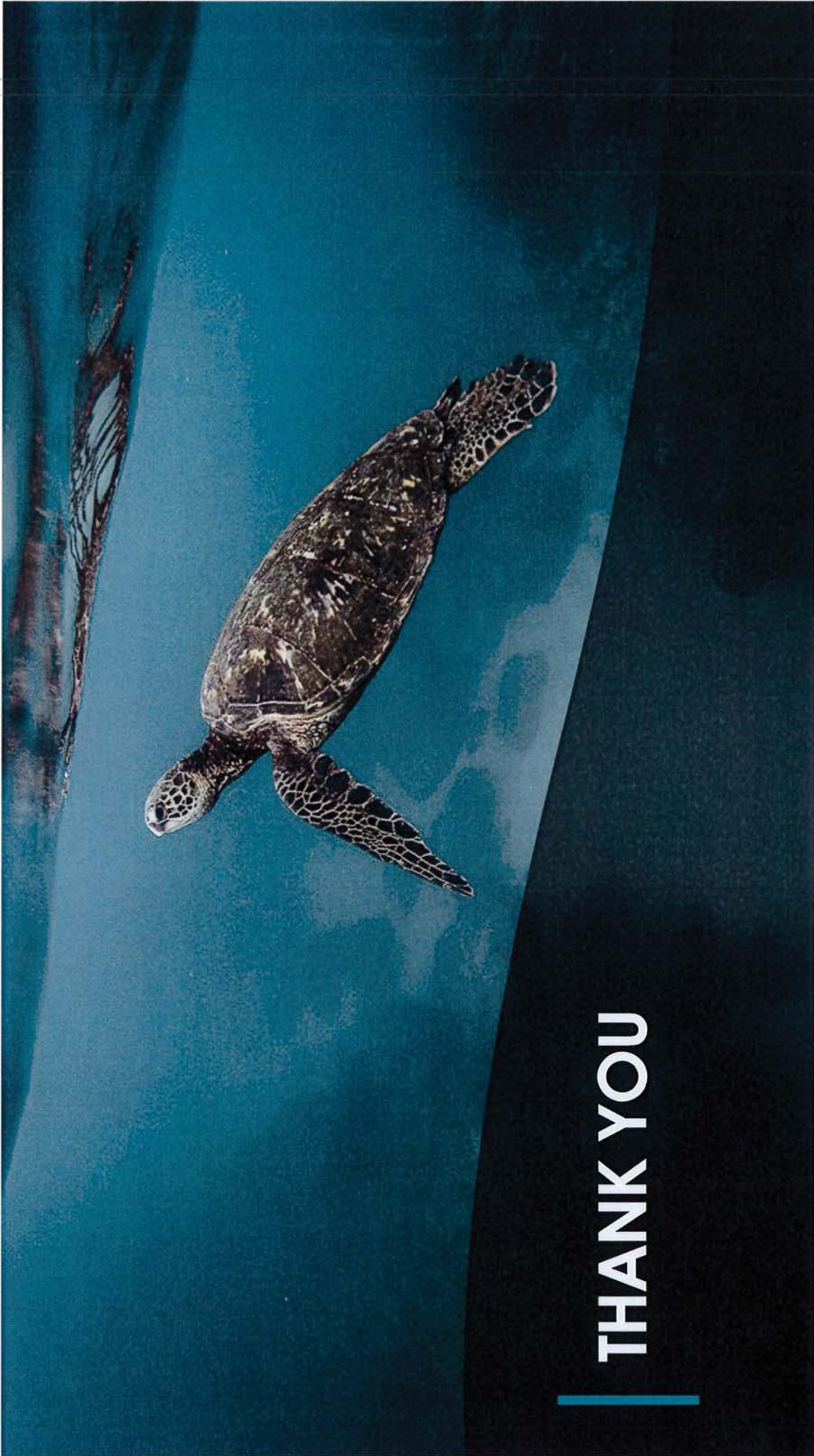
| Performance Tier | Speed (Mbps) | Usage Allowance | Points |
|------------------|--------------|-----------------|--------|
| Minimum | 10/1 | 150 GB | 0 |
| Baseline | 25/3 | 150 GB | 10 |
| Above Baseline | 100/20 | 2 TB | 20 |
| Gigabit | 1 G/500 | 2 TB | 30 |

Our Commitment

Broadband VI:

- has hurricane-resilient subsea and middle mile network infrastructure, and **will continue to augment for resilience**
- **will build last-mile connectivity that is resilient** enough to survive a major hurricane
- **can meet the timetable we propose**, and has the knowledge and experience to get it done
- has Gigabit speed capability today in its subsea, middle mile, and certain end-user locations, and **is committed to delivering Gigabit speeds network-wide**





THANK YOU