

THE FEDERAL TELEWORK NETWORK FROM

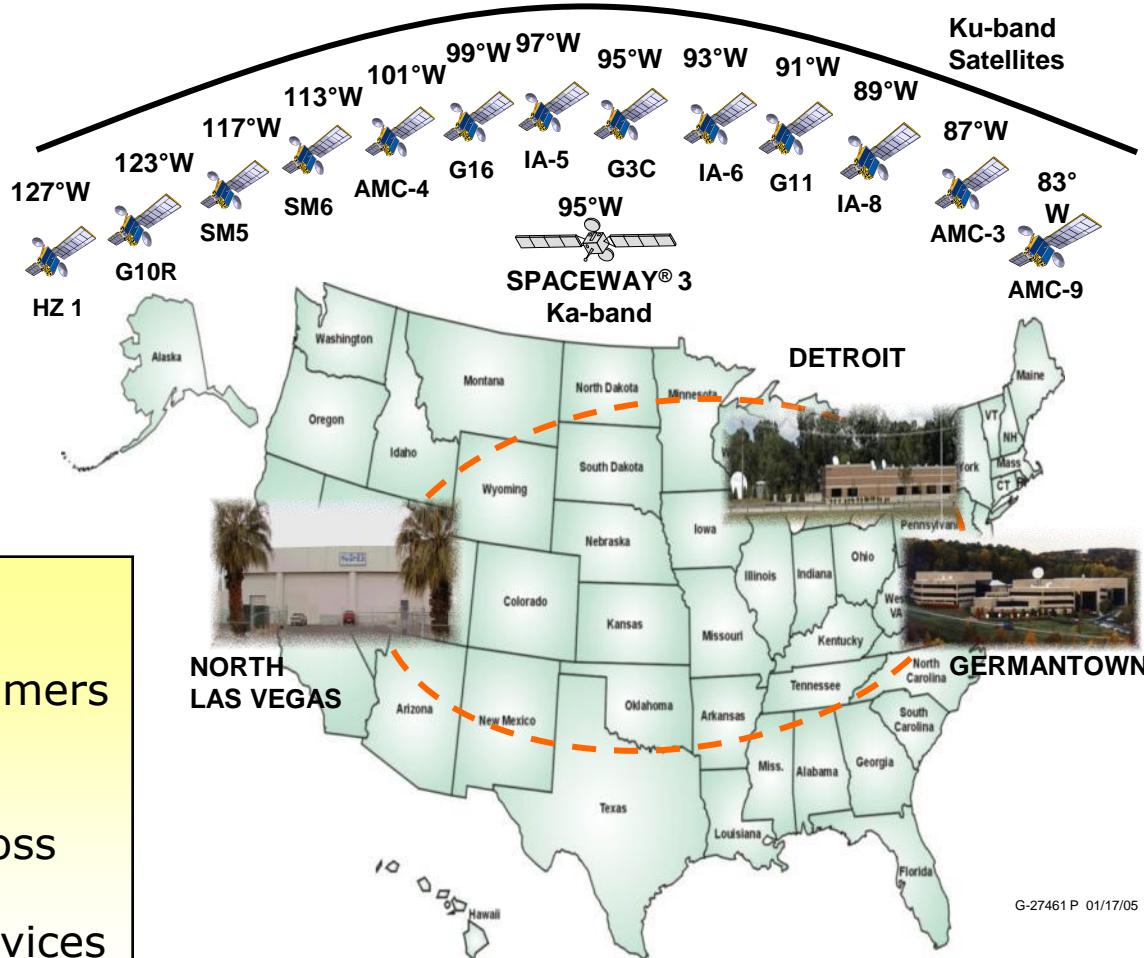
HUGHES[®]

Connect to the future.[™]

Hughes Corporate Highlights

- ❖ Hughes Corporation
 - Premier provider of managed network solutions to enterprises throughout the world
 - Over 2.1 Million satellite terminal provided globally
 - Revenue over \$1.0 billion
 - Over 300,000 managed service access points worldwide
- ❖ HughesNet for Consumers
 - Leading satellite broadband provider to consumers in North America
 - Over 500,000 subscribers
- ❖ Hughes Technology
 - Leader in communication technology and innovation
 - **Satellite, wireless and wireline networking ****
 - System technology
- ❖ Diverse and growing markets internationally
 - Emerging markets
 - Service providers
 - Public and private networking

HughesNet[®] Consumer/SME Service



2010 Network Stats

- ❖ >700K Sites; >500K Consumers
- ❖ Largest managed network services provider in USA
- ❖ Over 100 transponders across 13 satellites
- ❖ SPACEWAY[®] 3/Ka-band services commenced April 2008

G-27461 P 01/17/05

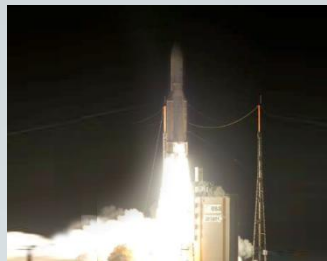
Hughes Satellite Platforms for North America

SPACEWAY® 3



- 10 Gbps Capacity
- Largest Commercial Satellite in North America
- Bandwidth on Demand
- Dish to Dish Connectivity
- 1 – 5 Mbps Downloads for Consumers

Jupiter: new High Throughput Satellite



- 100 Gbps Capacity
- In service 2012
- Multi Spot Beam
- Advanced Coding Rates
- Optimized for broadband access
- 5 – 25 Mbps Downloads

Conventional Transponder Leases



- Over 100 Transponders on 15 Different Satellites
- Extensive Multicast Support
- Extended Coverage Beyond United States
- 750Kbps to 2Mbps downloads

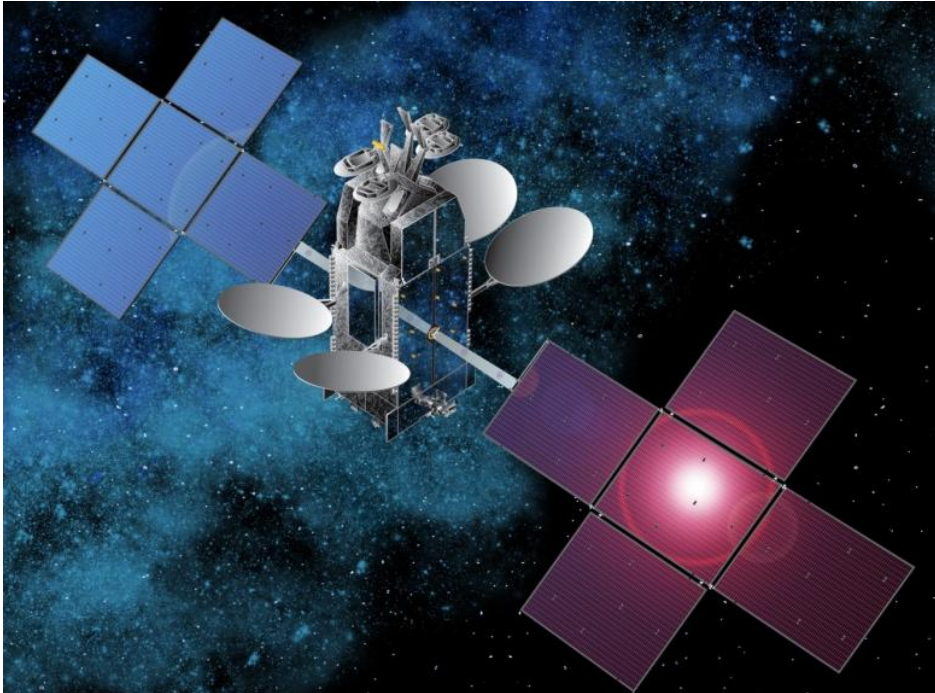
SPACEWAY™ 3

Launched August 14, 2007

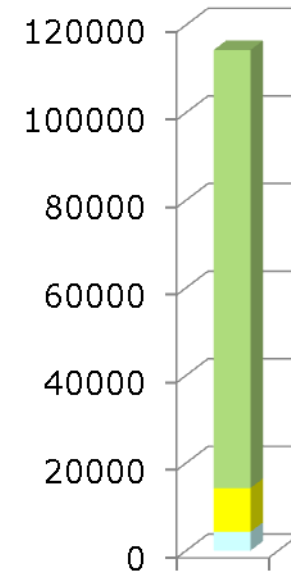
- ❖ 10 Gbps gross throughput
- ❖ Multiple spot beams with flexible capacity allocation and on-board routing
- ❖ Full small-dish-to-small-dish capabilities
- ❖ Enterprise, Consumer, Government and SMB applications



Jupiter Satellite Expansion



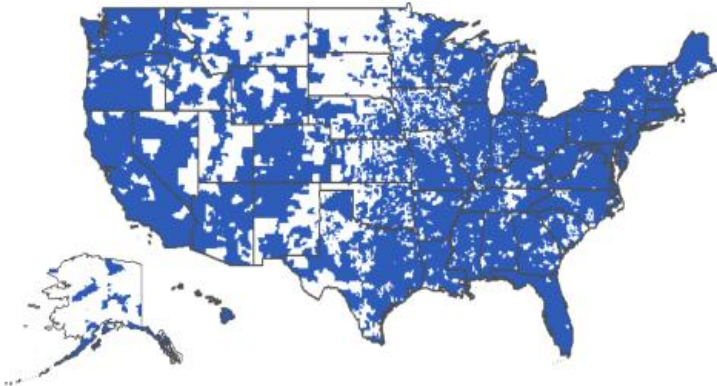
- **Over 100 Gbps capacity**
 - (~100 times the capacity of a typical satellite)
- **More user speed:**
 - *5–25 Mbps down*
 - *1–5 Mbps up*
- **In service 2012**
- **Optimized for broadband access**



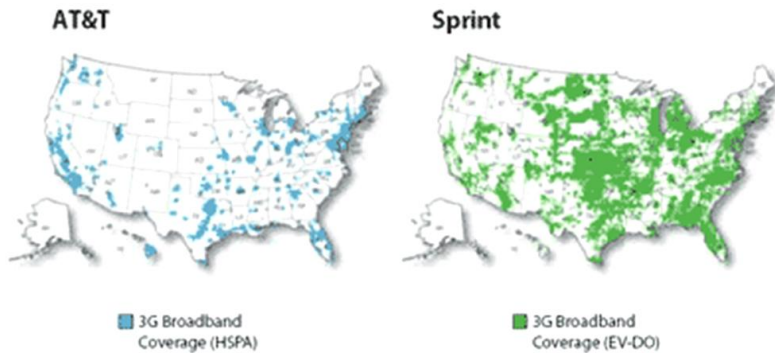
Bandwidth

- **Jupiter**
- **SPACEWAY**
- **Ku-band**

Hughes Wireless and Wireline Infrastructure



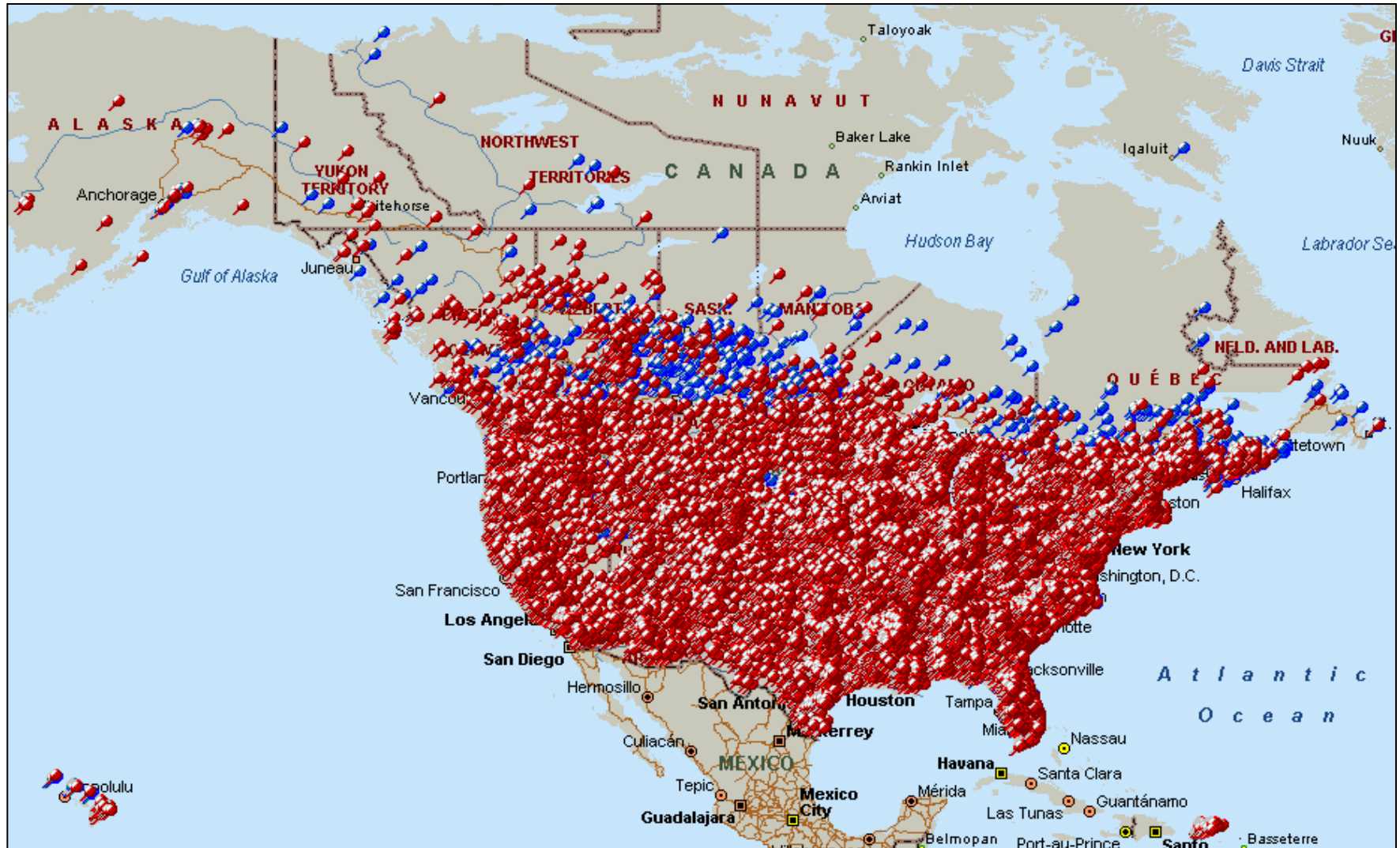
Nationwide DSL, Cable and T1 Coverage



Nationwide 3G Coverage

Logos displayed include: RADIANT COMMUNICATIONS, Sprint, AT&T Wireless, CONTOUR networks, TIME WARNER, CABLEVISION, Comcast, COX COMMUNICATIONS, Charter COMMUNICATIONS, cicat networks, windstream communications, cicat networks, frontier Communications, COVAD, PAETEC, CenturyLink, IOWA TELECOM, RADIANT COMMUNICATIONS, Qwest, Cincinnati Bell, at&t, verizon, and NEW EDGE Networks.

Hughes Consumer/customers are everywhere!!!



Executive Summary on Telework from August 2009 Report to Congress

- ❖ For 2008 agencies report that:
 - Over 102,000 employees were teleworking
 - 64% of these employees were teleworking relatively frequently (either 1 or 2 or 3 or more days per week)
 - Almost half of these agencies had not fully integrated telework into their Continuity Of Operations (COOP) planning
 - Office coverage and management resistance were considered the largest barriers to implementation

Teleworking Makes Cent\$

- ❖ Teleworking during “Snowmageddon ” allowed the federal government to save about \$30 million a day
- ❖ If all eligible Federal government employees teleworked two days per week, they would collectively save over \$781 million a year
- ❖ US PTO reported that the 1,300 patent examiners have who relinquished their offices saved the agency over \$11 million in office space
- ❖ President Obama’s budget for fiscal 2011 increases the number of Federal employees who are eligible to telework by 50 percent
- ❖ Telework’s attributes are many, but its most important benefit may be as an ideal management tool for COOP in the event of a disaster.

Issues with Teleworking , the Teleworker Network , “The Un-Managed Piece of Telework”

- ❖ Internally agencies rely on improved network technologies to connect their fixed locations
 - Between \$10-40 million per year spent on individual department-wide networks.
 - These networks are private and secure, with dedicated communications circuits on a national and sometimes, global scale.
 - These networks are well-managed by a team of both government and industry personnel
- ❖ The cohesiveness of these networks are not yet effectively extended to an emerging and growing telework population.
- ❖ The **“Tele”** part of Telework needs to be brought up to the standards of the agency enterprise networks to ensure teleworker effectiveness.
- ❖ To ensure consistency this part of the network needs to be managed and treated like the network in the agency

The Case for a Managed Telework Service

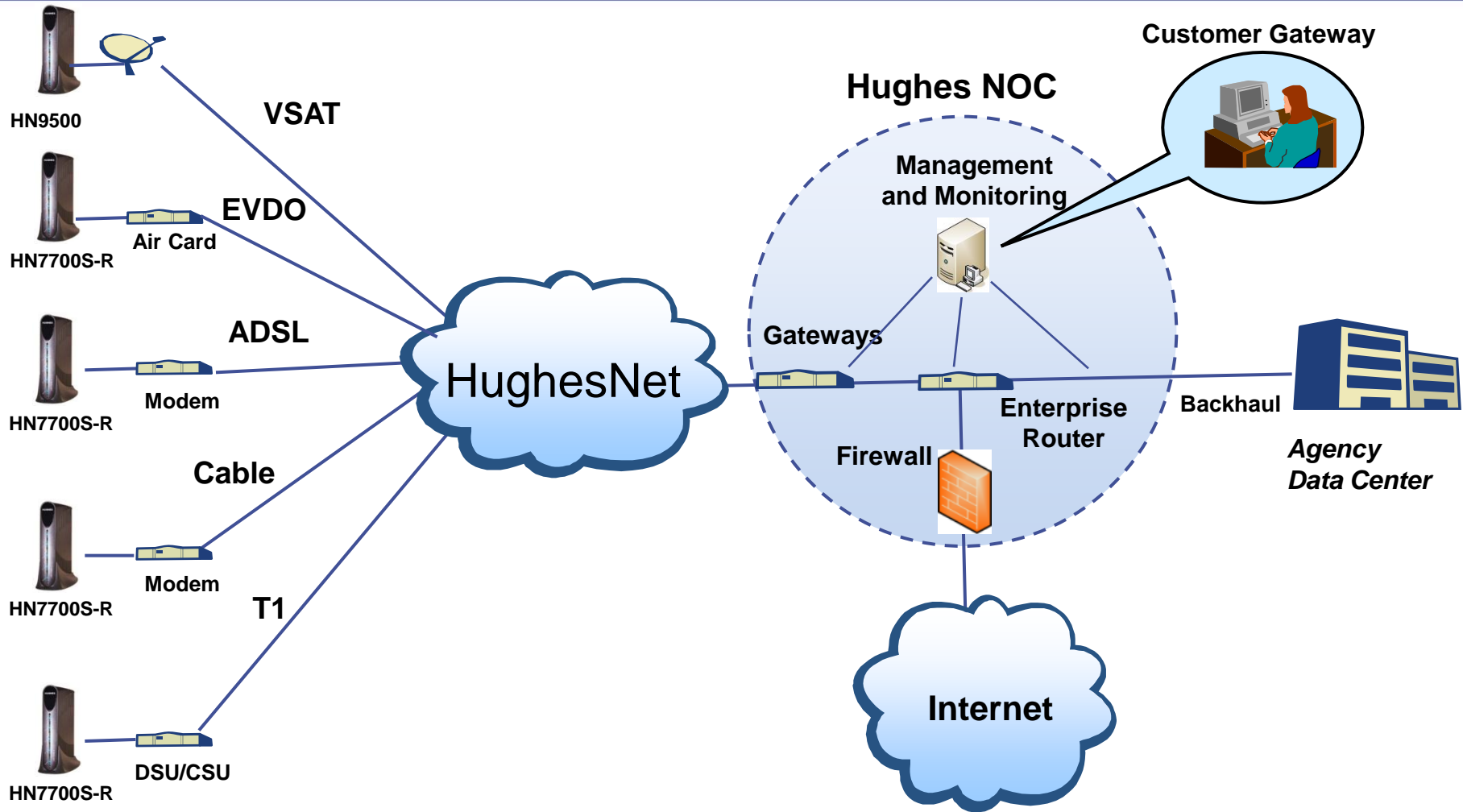
Current Situation

- ❖ Acquisition methods for telework communications services differs by agency
 - Teleworkers pick their own ISP
 - Agency reimburses, or
 - Agency doesn't reimburse
 - Telework force is supported by multiple vendors providing different services: DSL, cable, fiber, satellite broadband, or dial-up
- ❖ This approach results in
 - Varying levels of service quality, performance, and security,
 - Reimbursement to individual employees and/or payments to a myriad of vendors

Solution

- ❖ Engage a trusted provider to deliver a comprehensive, managed service with contractual quality and performance commitments
 - Ensuring a uniform, high-quality SLA network across the entire telework force.
 - **Selection of the best technology** for the teleworker, DSL, Cable or Satellite
 - Eliminating administrative burden of processing multiple reimbursements, thus **improving administrative efficiency,**
 - **Decreases costs.**
 - A complete monitored, managed network solution, with secure IP sec tunneling

Hughes approach is a Managed Telework Architecture



Continuity of Operations

- ❖ Telework's attributes are many, but its most important benefit is as an ideal management tool for COOP in the event of a disaster.
- ❖ What if key agency personnel were unable to get in to work due to unforeseen circumstances?
- ❖ Are agencies prepared with adequate communications resources deployed to its top managers' homes?
- ❖ If so, but to what extent are those circuits protected from harm, from disruption, from reliance on the public Internet?
- ❖ Hughes' Telework Network Services can provide private connections that are dedicated, and independent of other networks that are:
 - ❖ Less private
 - ❖ More prone to congestion during an emergency

Benefit of the HughesNet Managed Telework Service

- ❖ **Single Solution Provider. Hughes proactively manages:**
 - All terrestrial broadband (fiber, DSL, cable) connections and satellite
 - Operations Center, providing one portal for visibility into the network
 - Responsive, online ticketing system
 - Secure, IP sec tunnel setup for each connection
- ❖ **Efficiency - streamlining the billing and reimbursement process**
 - Agency administrative personnel are freed up to...
 - Dedicate more time to mission-critical activities.
- ❖ **Ubiquitous Connectivity. Broadband services are available to:**
 - Teleworkers across the U.S., whether rural or other
 - Regions unserved or underserved by terrestrial alternatives, or
 - In areas impacted by emergencies.
- ❖ **Consistency/Security. A uniform, high quality of service**
 - Security is provided to teleworking employees consistent with
 - An agency's private networking requirements.

Telework accommodates administration's focus on efficient and improved government service

- ❖ Telework has grown in importance for many reasons:
 - Lower overhead
 - Reduced traffic congestion
 - Ability to recruit younger work force
 - Improved quality of life for employees
 - COOP!
- ❖ HughesNet Optimized Service offers managed broadband satellite, terrestrial, and wireless service to government agencies in support of Telework initiatives:
 - One managed services provider:
 - One bill, one trouble call,
 - A Telework network solution



Finally, a Network Solution for all Federal Teleworkers

