



COMPLIANCE COMPONENT

DEFINITION	
<i>Name</i>	SATELLITE COMMUNICATIONS - Voice/Video/Data network communications over non-terrestrial links using a satellite placed into orbit.
<i>Description</i>	Satellite communications is a communications technology that provides wide area network connectivity using geosynchronous satellites 22,000 miles above the earth. The satellite system is transparent to the Internet protocols used for the WWW, e-mail and other applications, appearing to be a circuit, just like a DSL or T1 circuit would, to the PC. However, this transparency is only at layers one and two, and although the TCP/IP traffic will pass over the link, issues unique to satellite transmission affect the application traffic and its performance over the network. The end user is generally provided with an Ethernet connection from the satellite transmitter/receiver (or satellite modem) and connects his/her PC or home network into the satellite modem. Some providers use Network Address Translation (NAT) to address end user machines, while others may provide one or more public addresses for the end user's network. The satellite modem acts as a router or gateway and may offer other functions, such as web caching, to the user.
<i>Rationale</i>	Satellite communications provides an alternative to common land-based carriers for sending Voice/Video/Data network traffic over the wide area network.
<i>Benefits</i>	Satellite communications offer communications to remote areas where it is difficult or cost prohibitive to provide these communications capabilities over conventional telecommunications carrier based facilities. Satellite communications can also be a very effective method for disaster recovery.
ASSOCIATED ARCHITECTURE LEVELS	
<i>Specify the Domain Name</i>	Infrastructure
<i>Specify the Discipline Name</i>	Network
<i>Specify the Technology Area Name</i>	External Service Providers
<i>Specify the Product Component Name</i>	
COMPLIANCE COMPONENT TYPE	
<i>Document the Compliance Component Type</i>	Guideline
<i>Component Sub-type</i>	

COMPLIANCE DETAIL

<p><i>State the Guideline, Standard or Legislation</i></p>	<p>The guidelines below should be followed when choosing a satellite communications contractor :</p> <ul style="list-style-type: none"> • The contractor should provide the following minimum bandwidth Upload/Download service offerings, which shall be committed speeds. The speeds must be available 24 hours per day, seven days per week for each site at the guaranteed committed speeds as listed below. The contractor is encouraged to provide additional Upload/Download packages. (Upload: location to satellite, Download: satellite to the location): 56Kbps/128Kbps (up/down) 56Kbps/512Kbps 192Kbps/1000Kbps 308Kbps/1000Kbps • Connectivity speeds must be upgradeable without hardware changes to the modem. • The contractor should guarantee the committed speeds for each location, no matter how many locations are added. • The data link between the contractor's satellite equipment and the customer's network equipment must be Ethernet. • Different sized receive/transmit dishes should be available to match reception to geographic location and the committed speeds. • The contractor's equipment should include the Exterior dish antenna, Cable set (up to 200 feet), and interior satellite modem. Options should be available for cable set lengths of greater than 200 feet. • The contractor's portable/deployable equipment should be capable of operating from power supplied by a portable generator. • The Contractor should offer port optimization based on customers application needs. • The contractor's service should support H.323 protocols including any successive industry-accepted standards. • The contractor's System should be capable of meeting NIST accreditation standard. • The contractor should have direct control of hub system, and should be able to positively control the security of all terrestrial elements of the system. • The contractor's signal transmission scheme should implement measures to prevent "eavesdropping" or signal diversion. • The contractor should provide encryption to a level that meets or exceeds triple DES levels. Options should be available to move to AES or any higher encryption levels during the contract period. • The contractor should be able to protect and segregate government traffic through the use of VPN or similar technologies. • The contractor should support VPN client encryption. • The contractor should support up to 8 individual IP addresses per device to support multiple VPN connections. • The contractor should support point-to-point VPN connections from the contractor's hub to the State of Missouri. • The contractor should ensure continuity of service from the end user satellite modem to the terrestrial hub, even in the event of catastrophic failure of satellite or transponder supporting service. • The contractor's terrestrial hub should have backup power. • The contractor should provide and document 99.5% network availability from the end user satellite modem to the terrestrial hub. • The contractor must provide on-site support with an 8-hour response time for stationary fixed nodes .
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<i>Document Source Reference #</i>	State Wide Satellite Service Contract
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Compliance Sources

<i>Name</i>	Morenet	<i>Website</i> WWW.MORE.NET	
<i>Contact Information</i>			
<i>Name</i>		<i>Website</i>	
<i>Contact Information</i>			

KEYWORDS			
<i>List Keywords</i>	SATELLITE, SATELLITE COMMUNICATIONS, COMMUNICATIONS, WAN, WIDE AREA NETWORK		
COMPONENT CLASSIFICATION			
<i>Provide the Classification</i>	<input type="checkbox"/> <i>Emerging</i>	<input checked="" type="checkbox"/> <i>Current</i>	<input type="checkbox"/> <i>Twilight</i> <input type="checkbox"/> <i>Sunset</i>
<i>Sunset Date</i>			
COMPONENT SUB-CLASSIFICATION			
<i>Sub-Classification</i>	<i>Date</i>	<i>Additional Sub-Classification Information</i>	
<input type="checkbox"/> <i>Technology Watch</i>			
<input type="checkbox"/> <i>Variance</i>			
<input type="checkbox"/> <i>Conditional Use</i>			
Rationale for Component Classification			
<i>Document the Rationale for Component Classification</i>			
Migration Strategy			
<i>Document the Migration Strategy</i>			
Impact Position Statement			
<i>Document the Position Statement on Impact</i>			
CURRENT STATUS			
<i>Provide the Current Status</i>	<input checked="" type="checkbox"/> <i>In Development</i>	<input type="checkbox"/> <i>Under Review</i>	<input checked="" type="checkbox"/> <i>Approved</i> <input type="checkbox"/> <i>Rejected</i>
AUDIT TRAIL			
<i>Creation Date</i>	6/1/05	<i>Date Approved / Rejected</i>	6/14/05
<i>Reason for Rejection</i>			
<i>Last Date Reviewed</i>		<i>Last Date Updated</i>	
<i>Reason for Update</i>			