

How to Pick an Internet Service Provider

LightBound provides a comprehensive range of solutions for today’s eBusinesses.

LightBound’s voice and data solutions help businesses increase their productivity and profitability.



Examine the ISP’s Network

The Internet is a vast network of hundreds of thousands of smaller networks. It is essential to find an Internet provider who understands the complexity of this structure and who has:

- Peering Agreements With Multiple Upstream Providers
- Adequate Upstream Bandwidth
- Multiple Paths for Carriers to Enter Their Facility
- Redundancy of Their Core Routers and Switches
- A Wide Coverage Area
- Network Infrastructure Housed in a Secure and Hardened Data Center that is SAS 70 Type II Certified

Peering Agreements & Redundancy

Check with the ISP regarding their peering agreements. It’s important to look for an ISP who has agreements with more than one upstream provider. ISP’s with only one upstream provider are at risk of losing all connectivity should their upstream provider have a Point of Presence (POP) problem. If the proper redundancy and protocols are in place, a network outage with a single provider should be transparent to the end customer.

SAS 70 Type II Certified Data Center

Make sure that the ISP houses their infrastructure equipment in a Hardened Data Center, that is SAS 70 Type II Certified. It’s critical that the ISP houses their equipment in a facility that is protected from high winds, power failures, fires, etc.

and has documented processes and procedures that is audited annually.

Adequate Upstream Bandwidth

Make sure that the ISP has adequate upstream bandwidth to support your Internet needs. It’s tough for an ISP providing bandwidth with a T1, to guarantee you a full T1 of bandwidth in return. Look for a provider with at least OC-3 level (155 Mbps) connections. Be sure to ask what type and how many connections they provide.

Multiple Points of Entry

How does the ISP deliver customer telecom (T1) circuits to their facility? Look for an ISP that delivers their circuits over a self-healing SONET network with dual entrances. This means that if one side of their fiber entrance was cut the data would reverse course and enter through the opposite side, which translates into no downtime for the customer. It’s also important to find a facility that has many carrier options when it comes to ordering a T1. Generally, the more choices the provider has for delivery of the circuit, the better the cost

Redundancy on the Core Network

Check with the ISP to make sure they have redundancy measures in place on their own core equipment. If all customer circuits terminate in the same core router or switch, a single problem with that router / switch will affect all customers. Do they keep spare parts on hand for their own equipment ?

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Support – Know what you’re really buying !

While a strong network infrastructure is important, it is equally as important to have great support. Keep in mind that you’re paying your ISP not only to get your connection up and running, but to keep it operational.

- How many senior managers are available, should the problem need to be escalated?
- Can they be reached by email ?
- Do they have “helping hands” agreements? or do they charge “a la carte” services such as tape changes, re-boots, or basic troubleshooting?

Coverage Area

Look for an ISP that has coverage in the area(s) desired. In years past, ISP’s would have to be physically located in certain areas to offer access. Today, most ISP’s can offer T1 or higher service anywhere in the United States at a reasonable cost. An ISP that matches up well with your company footprint can save you thousands in telecom WAN costs.

In Addition –Don’t forget to ask

There are few questions you should have answered by the sales representative you are working with regarding the Network Operations Center.

- What are the NOC’s outage reporting procedures?
- What is the general response time to outages?
- Do they have written escalation procedures should a problem need extensive technical expertise or managerial escalation?
- Can you request that the NOC contact you at any time during a day or night should an outage occur rather than waiting until business hours ?
- How often are they monitoring the connection?
- Does the NOC staff simply monitor the network or are they trained to proactively resolve network problems as they arise?
- Is the ISP focused on dedicated access? Ask if there is a separate support phone number with a priority queue for dedicated access customers.
- Specifically, what type of questions will the NOC staff answer? Some ISP’s provide support only on problems within their routers, while others will provide basic support up to and including the customer equipment.

24x7x365 Network Operations Center

The Network Operations Center (NOC) should be staffed by networking personnel who proactively monitor your connection 24 x 7 x 365. The NOC should work directly with the telecommunications vendor in case of an outage, and attempt to troubleshoot any problems immediately. A great way to test a potential ISP’s NOC is to give them a call. Call at two in the morning, on a holiday or during the weekend. This should give you an accurate overview of their support capabilities. When you call, find out:

- Does a real person answer the phone?
- How long does it take for them to answer the phone or get a live person?

