Consider the following simple network (very similar to example in talk, just with longer and more fiber links):

Use the tables below to develop pricing for a network based on gigabit Ethernet and 10gig Ethernet links for all fiber types (OM1, OM2, OM3, OM4, and G.652.D).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Types of Optical Interfaces** | | | | | |  | | |
| Standard | Speed | | Supported Fiber | | | | Cost | |
| 100baseFX | 100Mbs | | MM | | | | $250 | |
| 1000baseSX | 1000Mbs | | MM | | | | $500 | |
| 1000baseLX/LH | 1000Mbs | | MM or SM | | | | $1,000 | |
| 10GbaseSR | 10Gbs | | MM | | | | $1,500 | |
| 10GbaseLRM | 10Gbs | | MM | | | | $1,300 | |
| 10GbaseLR | 10Gbs | | SM | | | | $4,000 | |
| 10GbaseER | 10Gbs | | SM | | | | $10,000 | |
| **Distances Supported by Interfaces** | | | | |  | | |  | |  |
| Standard | | OM1 | | OM2 | OM3 | | | OM4 | | G.652.D |
| 100baseFX | | 2km | | 2km | 2km | | | 2km | | No |
| 1000baseSX | | 275m | | 550m | 1km | | | 1.1km | | No |
| 1000baseLX/LH | | 500m | | 500m | 500m | | | 500m | | 10km |
| 10GbaseSR | | 33m | | 82m | 300m | | | 550m | | No |
| 10GbaseLRM | | 220m | | 220m | 220m | | | 220m | | No |
| 10GbaseLR | | No | | No | No | | | No | | 10km |
| 10GbaseER | | No | | No | No | | | No | | 40km |

|  |  |
| --- | --- |
| **Cost of Fiber** |  |
| Fiber Type | Budget Cost per km |
| OM1 | $4,884 |
| OM2 | $4,054 |
| OM3 | $10,151 |
| OM4 | $19,959 |
| G.652.D | $1,185 |

Here are some worksheets to use.

What is the total installed fiber length?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cost of 1 Gigabit Network** | | |  |  |
| Fiber Type | Fiber Cost | Optics Used | Optics Cost | Total Cost |
| OM1 |  |  |  |  |
| OM2 |  |  |  |  |
| OM3 |  |  |  |  |
| OM4 |  |  |  |  |
| G.652.D |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cost of 10 Gigabit Network** | | |  |  |
| Fiber Type | Fiber Cost | Optics Used | Optics Cost | Total Cost |
| OM1 |  |  |  |  |
| OM2 |  |  |  |  |
| OM3 |  |  |  |  |
| OM4 |  |  |  |  |
| G.652.D |  |  |  |  |