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



Border Router

Core Router



Central Servers for campus



Fiber optic links to remote buildings

500m

800m

200m

1000m

Copper cable



300m



500m

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).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Standard** | **Cost** | **OM1** | **OM2** | **OM3** | **OM4** | **G.652.D** |
| **100baseFX** | $55 | 2km | 2km | 2km | 2km | No |
| **1000baseSX** | $30 | 275m | 550m | 1km | 1.1km | No |
| **1000baseLX/LH** | $50 | 500m | 500m | 500m | 500m | 10km |
| **10GbaseSR** | $210 | 33m | 82m | 300m | 550m | No |
| **10GbaseLRM** | $320 | 220m | 220m | 300m | 400m | No |
| **10GbaseLR** | $320 | No | No | No | No | 10km |
| **10GbaseER** | $600 | No | No | No | No | 40km |

|  |  |
| --- | --- |
| **Fiber Type** | **Budget Cost per km** |
| **OM1** | $4,170 |
| **OM2** | $3,319 |
| **OM3** | $7,838 |
| **OM4** | $8,640 |
| **G.652.D** | $964 |

Here are some worksheets to use.

What is the total installed fiber length? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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