### History of Ethernet Speeds

<table>
<thead>
<tr>
<th>Year</th>
<th>Standard</th>
<th>Speed (Mbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>10Base-T</td>
<td>10</td>
</tr>
<tr>
<td>1990</td>
<td>100Base-T</td>
<td>100</td>
</tr>
<tr>
<td>2000</td>
<td>1000Base-T</td>
<td>1000</td>
</tr>
<tr>
<td>2010</td>
<td>10GBASE-T</td>
<td>10000</td>
</tr>
<tr>
<td>2020</td>
<td>10GBASE-T</td>
<td>10000</td>
</tr>
</tbody>
</table>

### Evolution of Ethernet Speeds Over Cat Cables (3-8)

- **1990-10Base-T**: 10 Mbps (Cat 5e)
- **1995-100Base-TX**: 100 Mbps (Cat 5e)
- **1999-100Base-T**: 100 Mbps (Cat 6)
- **2002-10GBase-T**: 10 Gbps (Cat 6A)
- **2006-10GBase-T**: 10 Gbps (Cat 6A)
- **2016-2.5GBase-T and 5GBase-T**: 2.5 Gbps and 5 Gbps (Cat 8)

### Number of Ethernet Switch Ports Sold

- **1990s**: Over 5.6 billion 100BASE-T and 1000BASE-T switch ports shipped.
- **2003 to 2017**: 85 billion meters of Cat 5e and Cat 6 cabling were sold.
- **2020**: More than 5.6 billion 100BASE-T and 1000BASE-T switch ports shipped in last 20 years.

### Result: Gigabit Bottleneck

<table>
<thead>
<tr>
<th>Technology</th>
<th>Speed Increase</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>100Base-T</td>
<td>5X</td>
<td>100m</td>
</tr>
<tr>
<td>1000Base-T</td>
<td>6X</td>
<td>30m</td>
</tr>
<tr>
<td>10GBASE-T</td>
<td>5X</td>
<td>100m</td>
</tr>
<tr>
<td>10GBASE-T</td>
<td>6X</td>
<td>30m</td>
</tr>
</tbody>
</table>

### How the Industry is Solving the Problem

- **Catalyst Digital Building Series**: Helps address the Gigabit Bottleneck by providing multigigabit technology portfolio.

### Cisco Multigigabit Technology Portfolio

- **Catalyst 3650 Series**: Supports 1 Gbps, 10 Gbps, and 25 Gbps on Cat 5e/Cat 6 cabling.
- **Catalyst 4500 Series**: Supports 2.5 Gbps and 5 Gbps on Cat 5e/Cat 8 cabling.
- **Catalyst 9600 Series**: Supports 10 Gbps, 25 Gbps, and 40 Gbps over Cat 5e/Cat 6A cabling.

### Cisco Multigigabit Key Benefits

- **5X Speed Increase**: Supports speeds up to 10 Gbps over existing Cat cables.
- **Adaptive Rate Technology**: Maintains switch to AP reach at higher speeds.
- **Up to 5Gbps over existing Cat cables (3-8)**: Enables widespread deployment, evolves Ethernet standards, and facilitates interoperability.
- **IEEE 802.3bz 2.5/5GBASE-T standard**: Compliant with 1000BASE-T and 10GBASE-T standards.
- **IEEE standards**: With 45+ participant companies.
- **Infrastructure Investment Protection**: Supports 100m distance with Cat5e/Cat6 cabling.
- **Power over Ethernet (PoE)**: Up to 90W PoE over 10GBASE-T to support a range of power needs.
- **2000m Distance**: Supports 100m distance with Cat5e/Cat6 cabling.
- **IEEE 802.3bt**: Supports up to 90W PoE/PoE+/UPOE+.

### How to Learn More

Visit the Cisco Multigigabit Technology website for more information and resources. For business inquiries, contact your local Cisco sales representative.