POET Technologies

Data Management at the speed of Light and cost of Copper

- Semiconductors that emit, detect, and manage light have evolved to become **a mature photonics technology.**
- They are the **communications engines inside huge data centers** that power the internet.
- Internet traffic growth is driving aggressive data center growth and placing **exponential demands on energy**. Energy consumption has emerged as a big challenge for data centers.
- **Using light to replace copper** interconnects substantially reduces energy consumption. Traditional optical solutions have not been cost effective due to the use of multiple individual components.
- A more elegant solution is to integrate all these components **monolithically, in cost effective and small form factors, and requiring significantly lower power consumption**. This is the POET approach.
- POET has developed a revolutionary technology that **integrates the optical communications module - optical and electronic components - on a single chip**.
- The complete monolithic integration by POET provides **up to an order of magnitude reduction in total power consumption and cost.**
- **POET enables the performance of light at the cost of copper.**
- The attributes of speed, cost, size, and power of the innovative POET platform enables disruption **in a variety of markets**.