

✖ **Facebook** unveiled the design of its new **Prineville data center** outlining features the company says improve efficiency and optimize the facility for social networking.

And Facebook said it will share what it's learned about data center design in hopes of improving efficiency across the industry.

By sharing its designs, Zuckerberg said, Facebook hopes to make the overall industry more efficient and bring down costs as manufacturers respond to increased demand for the kind of hardware Facebook wants.

The result is a data center full of vanity free servers which is 38% more efficient and 24% less expensive to build and run than other state-of-the-art data centers.

As Facebook's data appetite grew, the company decided it needed its own facilities. Prineville is the first data center the company has built itself; a second is under construction in North Carolina, and will open sometime next year.

The 300,000-square-foot facility sits on 127 acres atop a bluff above town. Facebook's filings with Crook County initially valued the project at \$200 million, but it's doubled in scale since then. Most of the cost will pay for the powerful servers that run the center.

The site is in a long-term rural enterprise zone, exempting it from property taxes for up to 15 years. It also qualifies for other state tax breaks.

Crook County has Oregon's highest jobless rate, 16.4 percent in February.

More than 1,000 people have worked on the Prineville data center at various points in construction. It will employ about 35 people when its first phase formally opens this spring. Another phase will open later this year, and there's room for further expansion.

Facebook's engineers explained how the company took advantage of Prineville's mild, dry climate to rethink data center designs from the motherboard to the facility's power supply.

✖ For Facebook's data center in Prineville, Open Compute Project hardware delivered:

- Energy savings—The data center uses 38 percent less energy to do the same work as Facebook's existing facilities. If a quarter of the data center capacity in the U.S. were built on Open Compute Project specifications, it would save enough energy to power more than 160,000 homes.
- Cost savings—In addition to the energy savings, Open Compute Project hardware means data center infrastructure costs 24 percent less to build out than Facebook's existing data centers.
- Materials savings—Servers use a vanity-free design with no paint, logos, stickers, or front panel – and are free of all non-essential parts. This saves more than 6 pounds of

New Facebook data center: energy efficiency, open design standards, room to grow

materials per server. In a typical data center, this would save more than 120 tons of material from being manufactured, transported, and, ultimately, discarded.

Facebook is publishing specifications and mechanical designs for Open Compute Project hardware, including motherboards, power supply, server chassis, and server and battery cabinets. In addition, Facebook is making available its data center electrical and mechanical construction specifications.

Additional materials:

More information about the project, specifications and CAD files are available at <http://opencompute.org/>

Facebook Engineering page at <http://www.facebook.com/Engineering>