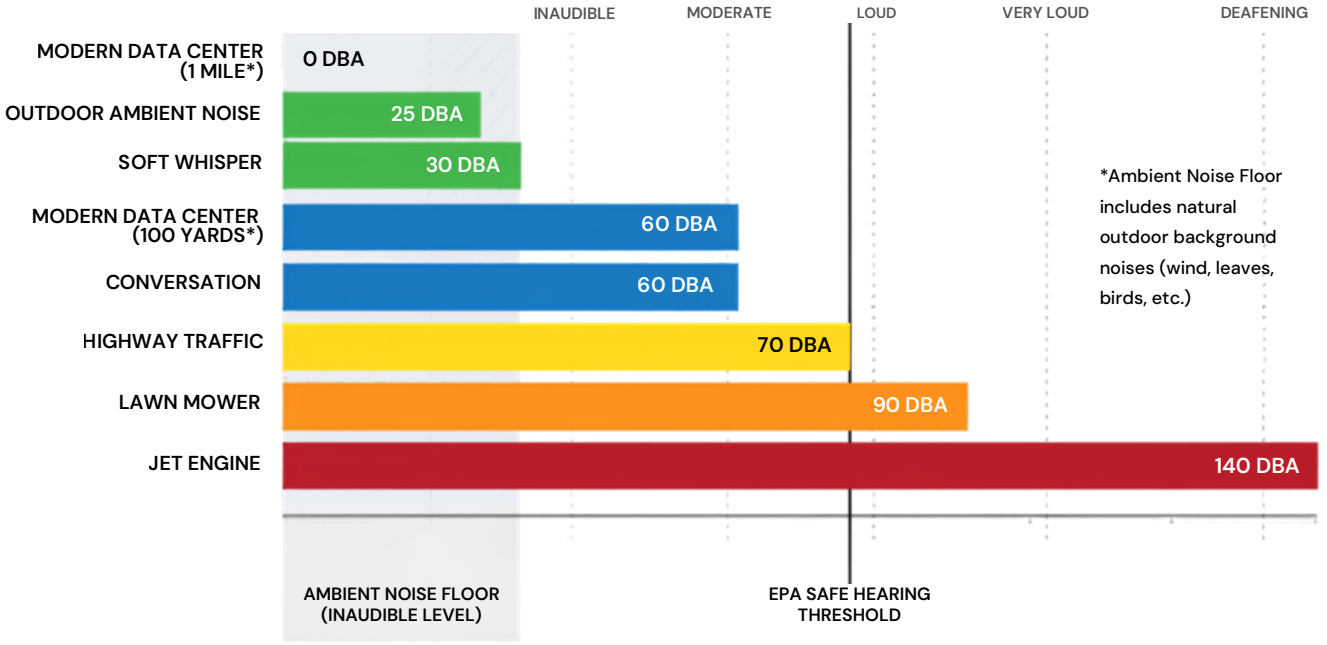
MYTHS VS. FACTS
DATA CENTER NOISE

MYTH:
Data centers are noisy

FACT:
Modern data centers are designed with noise mitigation as a core engineering consideration. Before construction begins, acoustic studies, equipment selection, site layouts, setbacks, and sound attenuation measures are often incorporated to help facilities comply with local ordinances and permitting requirements. Data centers must meet applicable local regulations governing sound levels and community impacts.

SOUND LEVEL COMPARISON: MODERN DATA CENTER VS COMMON SOUNDS



*Measured from base of equipment

HOW DATA CENTERS REDUCE NOISE IMPACT

- Liquid cooled servers in a closed loop system
- Outdoor dry coolers running slow and throttled down further at night
- Strategic equipment selection and placement
- Sound barriers
- Acoustic modeling

Total sound output is in line with a standard office building.

SOUND LEVELS FAQ

How loud is a modern data center up close?

At 100 yards (from the base of equipment), modern data centers operate between 55 to 65 dBA. This is entirely safe and equivalent to a standard outdoor central air conditioner or a normal, everyday household conversation.

Can you hear a modern data center from 1 or 2 miles away?

No, it is completely inaudible. While pure physics formulas calculate a micro-faint theoretical level of 30–40 dBA at a mile, real-world factors like atmospheric moisture, trees, and terrain completely dissolve the sound waves.

Why does the sound disappear so quickly?

Sound energy spreads out over distance. Every time distance doubles, the sound pressure drops dramatically. Over the span of a mile, the physical sound is entirely swallowed by the natural outdoor "noise floor" (wind, birds, and leaves) which naturally sits at 20 to 30 dBA.

Is this sound level harmful to my family or pets?

Not at all. Public health and hearing organizations confirm that continuous exposure to any sound below 70 dBA is completely safe and poses absolutely zero risk to human or animal hearing health.