First Principles Thinking in Technology: A Framework

1. Binary Foundations:

- Ones and zeros are the fundamental units of digital information.

- These binary digits are processed through silicon transistors in computers.

- They enable the creation of reads and writes on storage devices, forming the basis of all digital data handling.

2. Applications and Policies:

- Applications emerge from binary operations.

- Within applications, policies define how software behaves and interacts with data.

- Policies are crucial for managing the complexity of modern software systems.

3. CRUD Operations:

- CRUD stands for Create, Read, Update, and Delete.

- These are the fundamental operations that can be performed on any data or configuration within a software system.

- Understanding when and why to perform these operations is key to effective software management.

Application in Broadcom Solutions:

- Broadcom solutions like Automic, NetOps, and AppNeta rely on these principles to manage and automate complex systems.

- By applying first principles thinking, we can better understand and optimize these technologies to support critical business outcomes.

This framework provides a clear pathway from the most basic elements of computing to the complex processes involved in software management, ensuring that our work aligns with the broader goal of advancing technology to preserve human consciousness.