### Lesson 6

# **Network Layer Routing**

## Taking the path of least action.

### **Main Points**

- 1. Network layer routes packets from source to destination. The route may be pre-determined (in virtual-circuit subnets) or determined per packet (in datagram subnets). Actions in harmony with natural law are life supporting and take the path of least action.
- 2. Network layer routers manage processes to store-and-forward packets, as well as updating their routing tables with distance-vector or link-state routing. Purification leads to growth.
- 3. Distance-vector routing algorithms have each router maintain a table of the best distance to other destinations and share the table with other routers. (Bellman-Ford in RIP). Wholeness is found in every part.
- 4. Link-state routing differs by having each router send only the information about the distance of its nearest neighbors. Distribution of link-state packets becomes critical to proper updates. Dijkstra's algorithm in OSPF is now widely used. The whole is more than the sum of the parts.
- 5. Congestion control in a datagram subnet is solved by either open-loop approaches that try to prevent problems before they arise or closed-loop approaches that rely on a feedback loop to monitor congestion and take corrective action. Direct experience of the unified field in TM both prevents problems from arising and removes obstacles along the path.

## Connecting the Parts of Knowledge with the Wholeness of Knowledge

- 1. The role of the network layer is to transfer packets from a computer on one network to a computer on another (usually) different network.
- 2. The routing algorithm used on the Internet was originally the distance-vector algorithm, but it was changed to the link state algorithm to decrease the convergence time of the routing algorithm.
- 3. Transcendental consciousness is the field of infinite correlation.
- 4. Wholeness moving within itself: In Unity Consciousness, one spontaneously connects all desires, actions, and perceptions to their ultimate basis in pure consciousness.