WHAT IS CLAIMED IS:

1. A modular node for an optical communication network, the modular node comprising:

two or more transceiver modules of a plurality of transceiver modules each of at least some of which with an optical transceiver configured to emit optical beams carrying data without artificial confinement, and detect optical beams emitted without artificial confinement; and

a node core including a plurality of electrical connectors to electrically join up to the plurality of transceiver modules to the node core, the up to the plurality of transceiver modules electrically joined to the node core being spatially separated to provide configurable coverage for optical communication based on their number and placement,

wherein the node core further includes switching circuitry configured to connect the two or more transceiver modules to implement a redistribution point or a communication endpoint in the optical communication network, and

wherein at least some of the two or more transceiver modules joined to the node core further has a processor configured to control the transceiver module or facilitate communications between at least some of the two or more of the transceiver modules through the node core.

2. The modular node of claim 1, wherein the optical transceiver is configured to emit optical beams with a divergence angle greater than 0.1 degrees, and with a photonic efficiency of less than 0.05%, the photonic efficiency relating a number of detectable photons to a number of emitted photons of the optical beams.

3. The modular node of claim 1, wherein the two or more transceiver modules include optical transceivers with different specifications in terms of a nominal angle, datarate or distance.

4. The modular node of claim 1, wherein the two or more transceiver modules include transceiver modules having respective fields of view that at least partially overlap and thereby define an area covered by the transceiver modules when joined to the node core, and each of the transceiver modules supports communication to two or more transceiver modules of one or more other modular nodes in its field of view through time-division or wavelength division multiplexing, and

wherein the switching circuitry is further configured to dynamically select between the transceiver modules to provide coverage for the area covered by both or all of the transceiver modules.

5. The modular node of claim 1, wherein at least one of the two or more transceiver modules joined to the node core spans more than one of the plurality of electrical connectors.

6. The modular node of claim 1, wherein at least some of the two or more transceiver modules joined to the node core further has active tracking implemented by mechanical movement, beam steering or liquid lens.

7. The modular node of claim 1, wherein the processor is further configured to modify its power level or frequency of its optical transceiver based on activity of an adjacent transceiver module joined to the node core.

8. The modular node of claim 1, wherein the processor is further configured to ignore, block or filter optical beams intended for an adjacent transceiver module joined to the node core.

9. The modular node of claim 1, wherein the two or more transceiver modules include a transceiver module with an optical transceiver configured to emit and detect optical beams carrying data, and another transceiver module with an electromagnetic wave transceiver configured to transmit and receive electromagnetic waves carrying data and in a band in the range of 1 megahertz (MHz) to 10 terahertz (THz).

10. The modular node of claim 1, wherein the node core further has a processor configured to ignore, block or filter optical beams from one or more of the transceiver modules joined to the node core, or modify a power level or frequency of one or more of the transceiver modules joined to the node core.

11. The modular node of claim 1, wherein the node core further includes a network connection to link the modular node to another network that is distinct from the optical communication network.

12. The modular node of claim 1, wherein the switching circuitry being configured to connect the two or more transceiver modules includes being configured to switchably connect the two or more transceiver modules to support a mesh or mobile ad-hoc network topology of the optical communication network that includes the modular node and one or more other modular nodes with which the modular node is configured to communicate.

13. A method of implementing a redistribution point or a communication endpoint in an optical communication network, the method comprising:

electrically joining two or more up to a plurality of transceiver modules to a node core,

each of at least some of the plurality of transceiver modules with an optical transceiver configured to emit optical beams carrying data without artificial confinement, and detect optical beams emitted without artificial confinement,

the node core having a plurality of electrical connectors for electrically joining up to the plurality of transceiver modules, the up to the plurality of transceiver modules electrically joined to the node core being spatially separated to provide configurable coverage for optical communication based on their number and placement; and

connecting, by switching circuitry of the node core, the two or more transceiver modules to implement the redistribution point or the communication endpoint in the optical communication network,

wherein electrically joining the two or more transceiver modules comprises electrically joining two or more transceiver modules at least some of which further has a processor configured to control the transceiver module or facilitate communications between at least some of the two or more of the transceiver modules through the node core.

14. The method of claim 13, wherein the optical transceiver is configured to emit optical beams with a divergence angle greater than 0.1 degrees, and with a photonic efficiency of less than 0.05%, the photonic efficiency relating a number of detectable photons to a number of emitted photons of the optical beams.

15. The method of claim 13, wherein electrically joining the two or more transceiver modules comprises electrically joining two or more transceiver modules including optical transceivers with different specifications in terms of a nominal angle, datarate or distance.

16. The method of claim 13, wherein electrically joining the two or more transceiver modules comprises electrically joining two or more transceiver modules having respective fields of view that at least partially overlap and thereby define an area covered by the transceiver modules when joined to the node core, and each of the transceiver modules supports communication to two or more transceiver modules of one or more other modular nodes in its field of view through time-division or wavelength division multiplexing, and

wherein connecting the two or more transceiver modules further comprises dynamically selecting between the transceiver modules to provide coverage for the area covered by both or all of the transceiver modules.

17. The method of claim 13, wherein the processor is further configured to modify its power level or frequency of its optical transceiver based on activity of an adjacent transceiver module joined to the node core.

18. The method of claim 13, wherein the processor is further configured to ignore, block or filter optical beams intended for an adjacent transceiver module joined to the node core.

19. The method of claim 13, wherein electrically joining the two or more transceiver modules comprises electrically joining two or more transceiver modules including a transceiver module with an optical transceiver configured to emit and detect optical beams carrying data, and another transceiver module with an electromagnetic wave transceiver configured to transmit and receive electromagnetic waves carrying data and in a band in the range of 1 megahertz (MHz) to 10 terahertz (THz).

20. The method of claim 13, wherein connecting the two or more transceiver modules comprises switchably connecting the two or more transceiver modules to support a mesh or mobile ad-hoc network topology of the optical communication network that includes the modular node and one or more other modular nodes with which the modular node is configured to communicate.