CLAIMS

1. A module for mounting in a rack, comprising a frame and a tray, the frame being arranged such that it may be mounted to the rack, and the tray being slidably and pivotably connected to the frame, such that the tray may be moved between a first position, in which the tray is received within the frame and lies substantially parallel to the frame, and a second position, in which the tray lies outside the frame and at an angle to the frame.

2. The module of claim 1, wherein the tray comprises an upper face, which is arranged to lie parallel to the plane of the frame, when the tray is in the first position, and to lie at an angle to the plane of the frame and to face outwards from the frame, when the tray is in the second position, and wherein the tray is arranged such that components mounted within the tray are accessible from the upper face.

3. The module of claim 2, wherein the tray is arranged such that the components may be removed from the upper face.

4. The module of any one of the preceding claims, wherein the tray is arranged such that,

in the second position, the tray lies perpendicular to the frame.

5. The module of any one of the preceding claims, wherein one or more hot swappable electronic components are mounted within the tray.

6. The module of any one of the preceding claims, wherein the module is a hard disk array comprising a plurality of hard disk drives.

7. The module of any one of the preceding claims, wherein the tray comprises a plurality of compartments, each compartment being provided to removably support an electronic component and to provide the necessary connections to the component.

8. The module of claim 7, when dependent on claim 6, wherein each compartment is arranged to receive a hard disk drive, supporting the hard disk drive therein and providing the necessary power and data connections to the hard drive.

9. The module of any one of the preceding claims, wherein the frame is arranged to be mounted in a 19 inch rack.

10. The module of claim 9, wherein the frame has a height of 1U or a multiple thereof.

11. The module of any one of the preceding claims wherein there is more than one tray across the width of the module.

12. The module of any one of the preceding claims wherein the module forms a closed box when the tray is in its first position.

13. The module of any one of the preceding claims wherein the tray pivots with respect to the frame about a bearing means.

14. The module of any one of the preceding claims wherein the tray pivots with respect to the frame about a pivot point that is either vertically aligned with or behind the back edge of the top surface of the tray.

15. The module of any one of the preceding claims wherein the back surface of the tray is at an acute angle to the bottom surface of the tray.

16. A rack unit comprising a rack provided with one or more modules as defined in any one of the preceding claims.

17. The rack unit of claim 16 wherein the rack comprises two or more cavities within which one or more modules can fit.

18. The rack unit of claim 17 wherein the rack comprises two or more cavities and wherein one or more modules are mounted in each cavity.

19. The rack unit of claim 17 or 18 wherein the cavities each have a height that is a multiple of 1U.

20. The rack unit of any one of claims 16 to 19 wherein there is more than one tray across the width of the rack.

21. A hard disk drive unit that comprises a rack unit as defined in any one of claims 16 to 20, wherein one or more of the modules has hard disk drives located in its tray.

22. A module as hereinbefore described with reference to, and/or as illustrated by, the accompanying drawings.

CLAIMS

1. A module suitable for mounting in a rack, the module comprising a frame and a plurality of trays mounted in the frame across the width of the module, wherein each of the plurality of trays contains electronic hardware, such as hot swappable electronic components or computer equipment, the frame being arranged such that it may be mounted to the rack, and each of the plurality of trays being slidably and pivotably connected to the frame, in a manner such that each of the plurality of trays may be moved independently between a first position in which the tray is received within the frame and lies substantially parallel to the frame, and a second position in which the tray lies outside the frame and at an angle to the frame.

2. The module of claim 1, wherein each of the plurality of trays comprises an upper face, which is arranged to lie parallel to the plane of the frame when the tray is in the first position, and is arranged to lie at an angle to the plane of the frame and to face outwards from the frame when the tray is in the second position, and wherein each of the plurality of trays is arranged such that the hardware components mounted within the tray are accessible from the upper face.

3. The module of claim 2, wherein each of the plurality of trays is arranged such that the components may be:

(a) removed from the upper face; and/or

(b) inserted from the upper face.

4. The module of anyone of the preceding claims, wherein each of the plurality of trays is arranged such that, in the second position, the tray lies perpendicular to the frame.

5. The module of anyone of the preceding claims, wherein one or more hot swappable electronic components are mounted within each of the plurality of trays.

6. The module of anyone of the preceding claims, wherein the module is a hard drive array comprising a plurality of hard drives.

7. The module of anyone of the preceding claims, wherein each of the plurality of trays comprises a plurality of compartments, each compartment being provided to

removably support an electronic component and to provide the necessary connections to the component.

8. The module of claim 7, when dependent on claim 6, wherein each compartment is arranged to receive a hard drive, supporting the hard drive therein and providing the necessary power and data connections to the hard drive.

9. The module of anyone of the preceding claims, wherein the frame:
(a) is arranged to be mounted in a 19 inch rack; and/or
(b) has a height of 1 U or a multiple thereof.

10. The module of any one of the preceding claims, wherein each of the plurality of trays is in itself a modular unit that can be removed and replaced as required.

11. The module of anyone of the preceding claims, wherein the module forms a closed box when each of the plurality of trays is in its first position.

12. The module of anyone of the preceding claims, wherein each of the plurality of trays pivots with respect to the frame about a bearing means.

13. The module of any one of the preceding claims wherein each of the plurality of trays has a top surface, which is the surface that is uppermost in use when the tray is in its first position, and this top surface has a back edge, which is the edge of the tray that faces into the rack when the tray is in its first position, and wherein each of the plurality of trays pivots with respect to the frame about a pivot point, wherein said pivot point is either aligned in the same vertical plane as the back edge or is behind the vertical plane of the back edge.

14. The module of any one of the preceding claims, wherein each of the plurality of trays has a bottom surface, which is the surface that is lowermost in use when the tray is in its first position, and wherein each of the plurality of trays has a back surface, which is the surface of the tray that faces into the rack, in use, when the tray is in its first position, and wherein the angle between the bottom surface and the back surface is an acute angle.

15. A rack unit comprising a rack provided with one or more modules as defined in anyone of the preceding claims.

16. The rack unit of claim 15, wherein the rack comprises two or more cavities within which one or more modules can fit.

17. The rack unit of claim 16, wherein the rack comprises two or more cavities and wherein one or more modules are mounted in each cavity.

18. The rack unit of claim 16 or 17, wherein the cavities each have a height that is a multiple of 1 U.

19. A hard drive unit that comprises a rack unit as defined in anyone of claims 15 to 18, wherein at least one of the modules has hard drives located in its trays.

20. A rack unit or module as hereinbefore described with reference to, and as illustrated in, Figs. 12 and 13.