What is claimed is:

1. A positioning network comprising:

a designated reference device configured to generate and transmit a reference signal according to a timebase for said designated reference device; and

a plurality of positioning-unit devices, each of said positioning-unit devices being configured to generate a unique positioning signal and chronologically synchronise said unique positioning signal to said reference signal,

wherein a predetermined one of said positioning-unit devices is configured to:

(i) monitor said reference signal;

(ii) assess the serviceability of said reference signal; and

(iii) take control of the positioning network in the event it determines that said reference signal is unserviceable,

such that other positioning-unit devices can chronologically synchronise their unique positioning signals to the unique positioning signal of the predetermined positioning-unit device, thereby maintaining or establishing synchronisation of said network despite said reference signal being unserviceable.

2. The positioning network according to claim 1, wherein the monitoring of said reference signal comprises measuring a quality of said reference signal as received at said predetermined positioning-unit device.

3. The positioning network according to claim 1 or claim 2, wherein the predetermined positioning-unit device is configured to obtain information on said reference signal from at least one other of said positioning-unit devices, for use in assessing the serviceability of said reference signal.

4. The positioning network according to claim 3, wherein said information comprises one or more measurements of a quality of said reference signal.

5. The positioning network according to claim 3, wherein said information comprises an assessment of the serviceability of said reference signal.

6. The positioning network according to claim 5, wherein said assessment is based on one or more measurements of a quality of said reference signal.

7. The positioning network according to any one of claims 3 to 6, wherein the predetermined positioning-unit device is configured to obtain information on said reference signal from one or more other positioning-unit devices that routinely receive said reference signal and routinely receive the unique positioning signal from said predetermined positioning-unit device.

8. The positioning network according to claim 7, wherein each of the other positioning-unit devices is configured to determine that it routinely receives a signal if it has received that signal for at least a predetermined percentage of a preceding predetermined time period.

9. The positioning network according to claim 7 or claim 8, wherein each of said other positioning-unit devices is configured to broadcast whether it routinely receives said reference signal or the unique positioning signal from said predetermined positioning-unit device.

10. The positioning network according to claim 2, claim 4 or claim 6, wherein said quality of said reference signal comprises received signal power, signal-to-noise ratio or signal continuity.

11. The positioning network according to any one of the preceding claims, wherein said designated reference device is configured, when starting up, to:

search for unique positioning signals from one or more of said positioning-unit devices; and

synchronise its signal to a selected one of said unique positioning signals if it detects that unique positioning signal within a first predetermined start-up period.

12. The positioning network according to claim 11, wherein said designated reference device is configured to synchronise its signal to the unique positioning signal of said predetermined positioning-unit device if that signal is detected.

13. The positioning network according to claim 11 or claim 12, wherein said designated reference device and said predetermined positioning-unit device are configured to negotiate return of control of the positioning network to said designated reference device after said designated reference device has synchronised its signal to one of said unique positioning signals.

14. The positioning network according to any one of the preceding claims, wherein said designated reference device and said predetermined positioning-unit device are configured to be able to receive said timebase from an external source, such that said timebase can be transferred to said plurality of positioning-unit devices or to one or more position receivers.

15. In a positioning network comprising a designated reference device configured to generate and transmit a reference signal according to a timebase for said designated reference device, and a plurality of positioning-unit devices each configured to generate a unique positioning signal and chronologically synchronise said unique positioning signal to said reference signal, a method for maintaining or establishing synchronisation of said network in the absence of a serviceable reference signal, said method comprising the steps of a predetermined one of said positioning-unit devices:

(i) monitoring said reference signal;

(ii) assessing the serviceability of said reference signal; and

(iii) taking control of the positioning network in the event it determines that said reference signal is unserviceable,

such that other positioning-unit devices can chronologically synchronise their unique positioning signals to the unique positioning signal of said predetermined positioning-unit device, thereby maintaining or establishing synchronisation of said network despite said reference signal being unserviceable.

16. The method according to claim 15, wherein the step of monitoring said reference signal comprises measuring a quality of said reference signal as received at said predetermined positioning-unit device.

17. The method according to claim 15 or claim 16, wherein the step of monitoring said reference signal comprises obtaining information on said reference signal from at least one

other of said positioning-unit devices, for use in assessing the serviceability of said reference signal.

18. The method according to claim 17, wherein said information comprises one or more measurements of a quality of said reference signal.

19. The method according to claim 17, wherein said information comprises an assessment of the serviceability of said reference signal.

20. The method according to claim 19, wherein said assessment is based on one or more measurements of a quality of said reference signal.

21. The method according to any one of claims 17 to 20, wherein the predetermined positioning-unit device obtains information on said reference signal from one or more other positioning-unit devices that routinely receive said reference signal and routinely receive the unique positioning signal from said predetermined positioning-unit device.

22. The method according to claim 21, wherein each of the other positioning-unit devices determines that it routinely receives a signal if it has received that signal for at least a predetermined percentage of a preceding predetermined time period.

23. The method according to claim 21 or claim 22, wherein each of said other positioning-unit devices broadcasts whether it routinely receives said reference signal or the unique positioning signal from said predetermined positioning-unit device.

24. The method according to claim 16, claim 18 or claim 20, wherein said quality of said reference signal comprises received signal power, signal-to-noise ratio or signal continuity.

25. The method according to any one of claims 15 to 24, wherein said designated reference device, when starting up:

searches for unique positioning signals from one or more of said positioning-unit devices; and

synchronises its signal to a selected one of said unique positioning signals if it detects that unique positioning signal within a first predetermined start-up period.

26. The method according to claim 25, wherein said designated reference device synchronises its signal to the unique positioning signal of said predetermined positioning-unit device if that signal is detected.

27. The method according to claim 25 or claim 26, wherein said designated reference device and said predetermined positioning-unit device negotiate return of control of the positioning network to said designated reference device after said designated reference device has synchronised its signal to one of said unique positioning signals.

28. The method according to any one of claims 15 to 27, wherein said designated reference device and said predetermined positioning-unit device are able to receive said timebase from an external source, such that said timebase can be transferred to said plurality of positioning-unit devices or to one or more position receivers.