# The Structure of Janet

**The Janet backbone**

The Janet network is based around a high-speed, high bandwidth backbone. The latest version of the backbone, which was designed to provide a high level of reliability as well as substantially increased capacity, came into full service in early 2007. It currently runs at 100Gbit/s.

A PDF map of the present Janet backbone is provided here and a schematic is available here.

**Regional Networks**

There are currently 12 Regional Networks in operation in England, one in Wales, five in Scotland and one in Northern Ireland. These networks provide the principal connection points for Janet in their areas.

Each of the Regional Networks has dual, diversely-routed connections to the core network, either via two point-to-point connections between each Regional Network entry point and separate locations on the core, or via a collecter arc where the network sweeps through a number of Regional Network entry points, connecting to two different core locations.

A PDF map showing the location of the Regional Networks is provided here.

**Core Points of Presence (C-PoPs)**

The traffic flow around Janet is controlled by routers situated at the C-PoPs, which are sited at critical 'crossroads' on the network. The C-PoPs house the network's switching and content equipment.

**The Technology**

The Janet backbone uses a technology called SDH that provides a high degree of resilience by re-routing traffic around a break in the network within 50 milliseconds of the break being detected. This resilience guarantees an availability of 99.95% for each link, together with a target time to repair of five hours.