

Extending Mobile Connectivity

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- Today, the GÉANT eduroam service provides connectivity to end users at participating Campuses
- Nearly 3600 service locations across all GÉANT partners.
- But the GÉANT eduroam service is not available at many other locations of interest (train stations, airports, libraries, cafes, etc).
- End users requiring mobile connectivity generally must either:
 1. Obtain connectivity from free or commercial WiFi operators
 2. Obtain connectivity from a mobile data operator

Option 1 – grow the community



- Seek to extend the GÉANT eduroam service by extending its uptake by the NREN's core and peripheral constituencies. For example:
 - A. *Encouraging and enabling NRENs to reach out to constituencies, such as libraries and schools, which have not already adopted the GÉANT eduroam service.*
 - B. *Facilitating the adoption of the GÉANT eduroam service by communities that do not have the necessary technical expertise by developing managed services or turnkey solutions.* For example:
 - negotiate the development of an 'eduroam'-branded hotspot solution from an OEM manufacturer which NRENs could re-sell to customers
 - port FreeRADIUS (the most widely used RADIUS server) to Microsoft Windows.
 - operate an NREN or GN3 managed wireless controller solution.

Option 2 – partnership with other WiFi providers



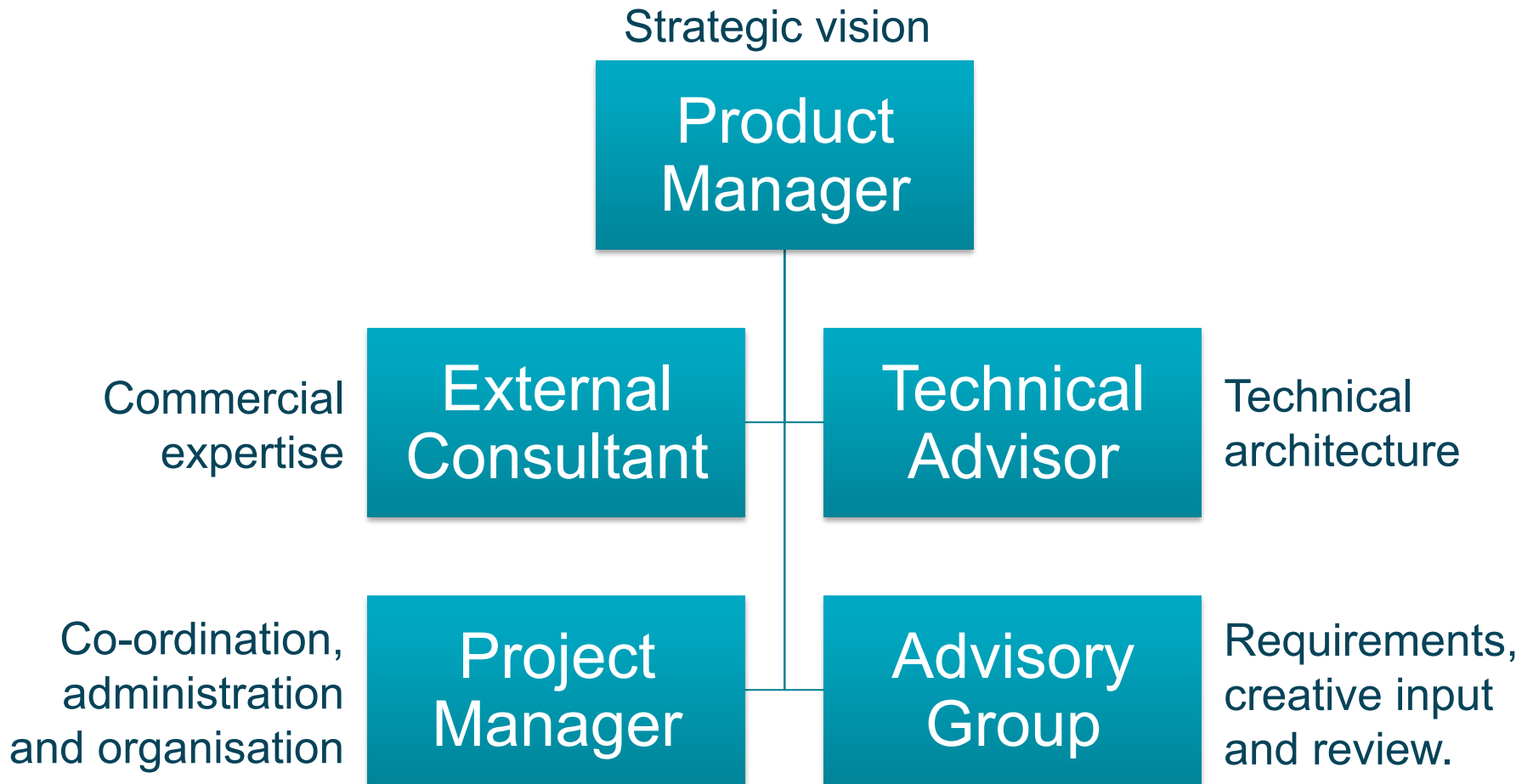
- Seek to extend the GÉANT eduroam service by incorporating organisations (commercial or otherwise) outside of the service's current constituency. This could be achieved, for example, by:
 - A. Subsidising one or more commercial providers to provide eduroam access.* This could be brokered either at a Pan-European level, through GÉANT, or nationally through NRENs using a GÉANT framework to promote consistency between the NRENs' partners.
 - B. Encouraging non-profit providers, such as municipal networks, to provide eduroam access.* This would probably need to be managed at a national level, but again GÉANT could provide a framework and Pan-European coordination of these efforts.

Option 3 – partnership with commercial mobile operators



- Seek to develop a mobile connectivity service that provided international roaming, building on the existing operators' services. This could be achieved, for example, by:
 - A. Subsidising one or more commercial operators to provide connectivity using their existing 3G services.* Again, this could be brokered either at a Pan-European level, through GÉANT, or nationally through NRENs using a GÉANT framework to promote consistency between the NRENs' partners.
 - B. Subsidising one or more commercial operators to provide connectivity using their planned 4G services.* There are some attractions to 'jumping' a generation and moving directly to a 4G-based service.

- Two phase activity split equally over 12 month period
 - Phase 1: Feasibility Study
 - *Engage with external Consultant to explore the feasibility of the options, given the customer requirements, capabilities of the NRENs, appetite of the marketplace and available resources.*
 - Phase 2: Business Case
 - *Develop a Business Case for one or more services based on the outcome of the Feasibility Study.*



Planned task



Future implementation task



Both tasks delivered within the forthcoming GÉANT Project Management Framework