



Gamma Network

Gamma Tier 1 Network

We place great emphasis on the availability, reliability and quality of our national network which underpins everything we do. We continue to invest for the future, ensuring the continued evolution of our network for unified communications and beyond, providing both converged services and discrete voice, data and mobile components.

Our network has been designed and deployed to:

- Ensure very high levels of system availability through multiple layers of technical and geographical resilience
- Support all the network elements of a converged solution, provided as an integrated solution or as component parts
- Support the end-to-end automation of customer transactions between our portal and network platforms enabling customers to place orders, configure services and access a range of product functions, as well as providing a suite of tools to manage billing and usage
- Facilitate the rapid development and deployment of new product functionality



Our network architecture can be broken down into three key areas:

Voice

- Our voice product platforms (SIP Trunking, Hosted telephony and Inbound) are an integral part of our national voice and data network
- Our underlying voice switching fabric is a carrier class, highly resilient, distributed, next-generation national softswitch network
- Gamma is part of the UK's national switching infrastructure
- Our network interconnects with all major UK and international fixed and mobile carriers
- We process over 2 million calls during peak business hours

Data

- We have a number of Points of Presence and Interconnect points across the UK
- Our data access products are designed to assure quality of service for our voice services and provide a single support structure
- Our data service architecture is integrated with our national voice network, enabling a fully-converged service
- Our Ethernet services are delivered through a combination of various UK wholesale providers and our own direct presence in a number of Openreach exchanges
- A fully-resilient solution delivered into more than one network node
- High capacity MPLS core network (10Tb capable routers)
- Direct peering with key content providers as well as geographically diverse internet transit

Mobile

- 4G data service
- Gamma owns the core mobile network giving us the same control as we have over fixed voice services for routing of all calls, text and data onto the Gamma primary network
- Gamma Mobile is independent from mobile operator control
- Gamma MultiNet® bolt-on provides access to multiple networks in one SIM

Network Resilience

For resilience, our fixed voice and data services are spread across six main locations and our key product platforms are located in at least two of these locations, with the ability for each node to act independently should one fail. As a result, we typically achieve 99.999% availability for these products.

The network incorporates a number of options for the routing of calls which are invoked automatically, should the primary route fail. We have points of interconnect with BT and points of presence around the UK and we utilise these to their full potential to give us as many routing options as possible to manage our network traffic.

Our service platforms and billing systems are housed in a replicated server environment with several layers of backup systems and process, including off-site storage.

Network Scale

Gamma's network covers the UK for both Voice and Data access, we operate an architecture that by its nature has significant capacity driven by multiple levels of resilience. The architecture itself is componentised, allowing us to build out additional capacity as required. We operate a capacity planning process that constantly reviews utilisation, resilience and sales forecasts to build out these components in a timely fashion.

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Assuring the availability and security of our network

We operate a comprehensive service governance framework, covering the following areas:

- Capacity Management
- Security
- Change Control
- Business Continuity
- Service Architecture
- Service Performance
- Risk Management

All of which are independently audited under ISO27001, 22301 and ND1643

Network Compliance

Gamma maintains a mature and comprehensive compliance regime which is regularly audited by an independent third party and fully qualified external auditors. We view compliance with these standards as an essential public statement of Gamma's commitment to delivering secure, reliable, quality services.

To support and inform the compliance regime, Gamma holds regular meetings attended by Director level personnel that include platform Service Reviews, Capacity Management, Business Continuity and Information Security. In addition, we invite all employees to contribute to improving quality. This input, plus feedback from our Customers, forms the agenda of the monthly Quality Steering Group, chaired by our CEO. This ensures that we drive the business to pursue a programme of Constant Service Improvement with full oversight of the senior management team.

ISO27001

This standard is a specification for an information security management system (ISMS). An ISMS is a framework of policies and procedures that includes all legal, physical and technical controls involved in an organisation's information risk management processes. It enables Gamma to demonstrate that we fully conform with the many controls within the standard and offers assurance to our customers that their information and services are secure.

ISO22301

Whilst business continuity forms a major part of ISO27001, this standard offers a detailed and comprehensive framework for ensuring that our services, processes and products are reliable, scalable and fully resilient. The standard mandates for a full Business Impact Analysis to be carried out on every aspect of our services and products to ensure that the resilience deployed is appropriate and 'fit for purpose'. The standard further demands that regular and extensive tests are made of deployed resilience and that these tests are comprehensive and fully recorded for external audit and assessment.

ND1643

ND1643 from the NICC and mandated by Ofcom contains controls and measures that constitute the minimum standards required to protect the UK national infrastructure and is applicable to any communications provider that has a direct interconnection with another communications provider. Gamma was one of the first telcos to adopt the standard in the UK and regularly attend NICC forums to assist in its development and applicability as the telephony network migrates towards IP technologies.

Contacts

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