



Transforming public services in the EU: A guide to modern communication

This guide explores the challenges facing public-sector organizations, along with the cloud communication solutions that support these needs while maintaining the highest standards of security, compliance and accountability.

Governments and other public-sector organizations are under pressure to modernize communications in a world that demands speed, efficiency, resilience and cost savings. But legacy systems are no longer sufficient to deliver secure, citizen-centric services while controlling costs and enabling hybrid work and inter-agency collaboration:

- 60-80% of European public sector IT budgets are routinely spent on maintaining legacy IT infrastructure¹
- Three-quarters of EU public sector organizations say legacy systems significantly and negatively affect their IT modernization initiatives²
- It's estimated that EU governments could save €450B by adopting advanced cloud solutions³



Government communications: The challenges

Global events have exposed weaknesses in public sector communication infrastructure: In critical moments, governments have often relied on temporary fixes to stay operational. But in many cases these stopgap solutions are still in place. Others began modernizing but have stalled due to skills gaps, siloed operations or difficulties integrating new systems with existing infrastructure.

- In the EU, only 52% of national targets included in member states' Digital Decade road maps were aligned with EU-level Digital Decade targets, indicating that national IT modernization plans are falling behind⁴

But falling further behind in their digital transformation has real costs for government – from operational costs, to security, to speed of delivery and erosion of public trust:

Spiraling costs

- **€1.3T:** How much the EU could lose by 2033, across public and private sectors, if no EU-level support for digital transformation occurs⁵

Speed/effectiveness of delivery

- **50-75%:** Estimated decrease in service processing times using modernized IT vs. legacy IT infrastructure⁶
- **123:** Number of critical outages in 2024 at NHS England due to outdated IT infrastructure⁷

Security

- **8:** Number of EU countries – including France, Spain and the Netherlands – that failed to meet an October 2024 deadline for implementing the NIS2 Directive, an important cybersecurity framework, largely due to outdated infrastructure⁸

Effective citizen interactions

- **70%:** Proportion of EU citizens aged 16-74 that used a government website or app⁹

But there's a growing recognition that cloud can help: A recent global survey shows that 93% of government IT respondents are already running some strategic workloads in private cloud.¹⁰

Modernizing government with cloud communications

Cloud-based communication and collaboration solutions help government organizations deliver fast, efficient, responsive and inclusive public services. By enabling seamless collaboration across departments, agencies and regions, these tools support smarter decisions and greater agility in daily operations:

- Advanced collaboration and multimedia tools boost communication, streamline tasks and improve productivity. Cloud video conferencing, for example, can improve collaboration and lower travel costs without the cost and burden of running your own infrastructure.
- Connectors to business apps reduce tool switching to enhance the user experience
- Communications Platform as a Service (CPaaS) enables real-time voice, video and messaging to be embedded directly into public applications
 - CPaaS allows automated alerts, smoother workflows and better citizen interactions while letting citizens choose how they communicate and ensuring security, compliance and data sovereignty
- Security and compliance are strengthened, as public cloud services are continually updated with the latest patches and standards – ensuring systems remain protected and aligned with regulatory requirements

Legacy IT vs. cloud: Cost-benefit analysis

Dimension	Legacy IT (status/cost)	Cloud benefit
Communication and collaboration	Fragmented email/IM, limited remote access, costly upgrades, expensive and complex video conferencing	Unified and secure collaboration suites boost productivity, remote by default, less expensive upgrades and video conferencing
Cost structure (Capex > Opex)	Long refresh and procurement cycles, stranded capacity, technical expertise required	Pay as you go (only procure the resources you need), flexibility on pricing
Operational efficiency	Manual patching/updating, bespoke scripts	Managed services (auto scaling and auto-patching), infrastructure as code
Speed/reliability of public cloud service delivery	Weeks to months to deploy new services, prone to single data center outages	Rapid deployment, global service-level agreements (SLAs), multi region high availability
Scalability/elasticity	Must overprovision or face service degradation at peaks, and unnecessary expense during slower periods	Elastic scale, can scale quickly up/down on demand
Security posture	Perimeter focused with legacy controls, slow and manual patching and updating	Zero trust architectures, enterprise-grade security features, managed (auto) patching and updating
Resilience, redundancy and DR	Expensive secondary sites, rarely tested	Cross region replication, DR as code, frequent testing
Compliance and auditability	Inconsistent logs, manual audits	Immutable centralized logs, automated evidence, supports frameworks like GDPR and ISO 27001

Choosing the right architecture

Government organizations face diverse needs and regulatory demands, especially around sensitive data. That means a one-size-fits-all cloud model doesn't work. The right architecture depends on your data sensitivity, legal statutes and transformation goals:

Public cloud enables rapid deployment, minimal IT overhead, automatic updates and pay-as-you-go scalability	Private cloud offers full control over data, meeting strict security and compliance needs	Hybrid cloud blends both, supporting modernization while preserving existing infrastructure investments
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Private cloud also offers advanced security protocols and can meet sector-specific regulatory standards, making these models ideal for government environments.

Solution sheet

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Alcatel-Lucent Enterprise: Cloud communications and collaboration tools for the public sector

France-based Alcatel-Lucent Enterprise is one of the world's leading networking, communications and cloud solutions providers. With flexible business models in the cloud, on premises and in hybrid environments, ALE provides the highest level of built-in security and follows global data protection requirements.

Rainbow™ by Alcatel-Lucent Enterprise

A sovereign Communications Platform as a Service (CPaaS) cloud solution offering comprehensive communication and collaboration capabilities. Hosted for the E.U. in France and Germany, with regional centers in APAC and the Americas, [Rainbow](#) meets the functionality, security and resilience needs of government and public sector organizations by enabling secure real-time data exchange through instant messaging, audio and video conferencing, webinars, alarm notifications and file sharing. Rainbow ensures high availability, fault tolerance and disaster recovery through a robust, geo-redundant architecture.

- Rainbow's APIs and SDKs make it easy to embed communication features such as voice, video, messaging and alerts into business applications, websites, mobile apps or workflows to enhance citizen engagement
- Additional functionalities such as [Rainbow Webinar](#) (for more formal events where citizens can listen and participate), Rainbow Room (high-quality audio and video for multiple attendees) and Connectors (to integrate communications into key business tools like Google, Microsoft and CRM systems) can further improve citizen-government communication
- Ensures data confidentiality in [compliance with local and global standards](#); ALE is GDPR, ISO 27001, HDS, ENS, HIPAA, CSPN, ANSSI and FERPA certified
- Supports public cloud (Rainbow Hub), private cloud (Rainbow Edge) and hybrid deployments

Geo-redundant cloud architecture

- Hosted in Tier III+ distributed data centers across Europe, North America and Asia, with automatic failover to ensure uninterrupted service
- Active-active and active-passive modes available to suit performance and cost requirements



- Automatic failover and disaster recovery; real-time replication
- Core services like voice, messaging and storage are fully redundant; failures trigger automatic rerouting with no user action needed
- Session and configuration data synced across zones to support fast recovery and minimize data loss

Hybrid deployment

- Rainbow Hybrid
- On-prem hardware keeps SIP/VoIP calls and directory access running during cloud outages – vital for remote and emergency sites
- OmniPCX PBXs support high-availability clustering and PSTN fallback to maintain local voice services when cloud access is lost

Monitoring and maintenance

- 24/7 monitoring
- Round-the-clock monitoring, anomaly detection and built-in self-healing for reliable performance

If you would like to know more about Alcatel-Lucent Enterprise solutions for government and the public sector, visit our government pages at al-enterprise.com/en/industries/government.

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4 "State of the Digital Decade, 2024." European Commission, July 2, 2024.
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7 "State of digital government review." UK Dept. for Science, Technology, & Innovation, 2025.
8 "EU targets eight member states over cybersecurity directive implementation delay." Digwatch, Aug. 13, 2025.
9 "E-government and electronic identification." Eurostat, Feb. 2025. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-government_and_electronic_identification
10 "2025 sees inflection point for government: a shift to private cloud." Broadcom, July 24, 2025.