

La Poste in France selects Allied Telesis for their network upgrade, achieving the reliability and security necessary for the postal service providers.



# Case Study | La Poste, France

La Poste, the French postal service, recently added new sites and services to their existing and extensive business. As their network equipment and systems were showing signs of age, La Poste decided to upgrade their network solution in order to continue providing a reliable and secure service to their many customers internationally. Allied Telesis products were chosen as an integral part of the new solution.

## Customer Profile

Although the name of the French mail service, 'La Poste', translates simply to 'The Post', La Poste is far from a simple organization. With 200 companies and over 306,350 employees, it is the second largest employer in France - only the government provides more jobs. La Poste runs two international mail treatment centres, one airport transit centre, one customised treatment centre, and one dispatch centre. It has 17,000 points of contact, 3 high-speed trains, 22 mail planes, and 80 partner airlines running 1,009 direct flights per week.

As well as providing the primary postal service in France, La Poste also operates services in several overseas locations:

- the French Overseas Departments of Réunion, Guadeloupe, Martinique, and French Guiana
- the Saint Pierre, Miquelon and Mayotte 'territorial collectivities'<sup>1</sup>
- Monaco
- Andorra

The leading postal operator in France, La Poste is also ranked third in the world - the company prides itself on providing dependable and effective services. Approximately 27 billion mail items are sent via La Poste in just one year. As an international mail solution, La Poste offers flexible and competitive services through its worldwide infrastructure.

"When you entrust us with your mail, we are committed to using the most reliable and speedy means regardless of the destination. In Europe, we deliver 93.7% of Priority mail within three days - or even two days for major cities." [www.laposte.fr](http://www.laposte.fr)

<sup>1</sup> Territorial collectivities are sub-national entities and dependent areas which have an elected local government.

In order to stay at the forefront of their business, La Poste recently decided to add some new services, and to enhance the reactivity and flexibility of their existing customer services. They re-designed their letter routing system, and invested in a new sorting system. As the new machines are Ethernet and IP-based, a more complex and robust network was required to support them, and the networks for La Poste's routing centres were no longer adequate. Not only had some of their existing equipment become obsolete, but new sites had been created. With approximately 500 separate locations, ranging in size from 30 to 1000 network users each, their requirements were varied. Some sites needed only minor updates, others were completely upgraded, and new sites required new network installations.

La Poste was already a satisfied customer of Allied Telesis, having used their AT-8326GB and AT-8024GB 24-port Managed Layer 2 switches in previous network solutions. Based on this history, and on Allied Telesis' solid reputation for delivering highly reliable and feature-rich advanced network solutions, La Poste selected a number of Allied Telesis Layer 3 products to form a fundamental part of the new network solution.

## Customer Requirements

At La Poste, the entire system is dedicated to letter sorting. When each letter or parcel arrives at a branch, the sorting process begins. The first stop is a video encoding system, a very large machine which takes a picture of the item, and sends this image to a server. The server identifies the destination address of the item using Optical Character Recognition (OCR), and sends back the correct routing information to the letter sorting system. Finally, the item is processed and put in the right box.

The largest sorting machine can process 50000+ letters per hour. The network needed to handle a very large number of image files - each and every letter is scanned and its image file is sent over the network, so the volume of traffic is significant by any standard. Due to the immense amount of data that is processed, La Poste had a number of specific networking requirements.

At the top of list was absolute reliability - La Poste prides itself on efficient mail delivery and effective systems, and their network had to support this, in order to maintain their reputation and

keep their customers. As redundancy is instrumental to achieving network reliability, this was also a necessity.

Security was of the utmost importance, due to both the sensitive nature of the data and the legal ramifications of mishandling mail.

The new network had to include a mixture of copper and fibre connectivity to support the substantial volume of video and data traffic. La Poste required fibre between core and access switches, and copper between access switches and clients.

Integrated management of the network infrastructure was needed, to ensure that La Poste could monitor performance and manage their network resources. In addition, all equipment chosen for the new network had to interoperate with the existing network management platform in use - the SNMP-based HP Openview.

## The Solution

La Poste incorporates 500 separate locations, each with its own network supporting anywhere from 30 to 1000 users. Because of this large degree of variation, two main network designs were used to meet their requirements: one design for large sites, and another for smaller sites.

### Large sites

La Poste have around 50 large sites, each supporting a substantial IP-based mail sorting system. The network infrastructure implemented in these sites has two distinct parts: the 'Industrial' network supports the mail sorting system; while the 'application' network supports video coding, application and business traffic. The two networks are separated by two redundant firewalls.

Each network incorporates chassis-based SwitchBlade® 4000 series switches in its core. A multi-layer modular switch, the SwitchBlade® 4000 provides high reliability and flexible scalability, as well as the power and control redundancy crucial to achieving the reliability La Poste required. A mix of 4 and 8 slot SwitchBlade® 4000 chassis was implemented, meeting each large site's specific needs.



SwitchBlade® 4000 Series

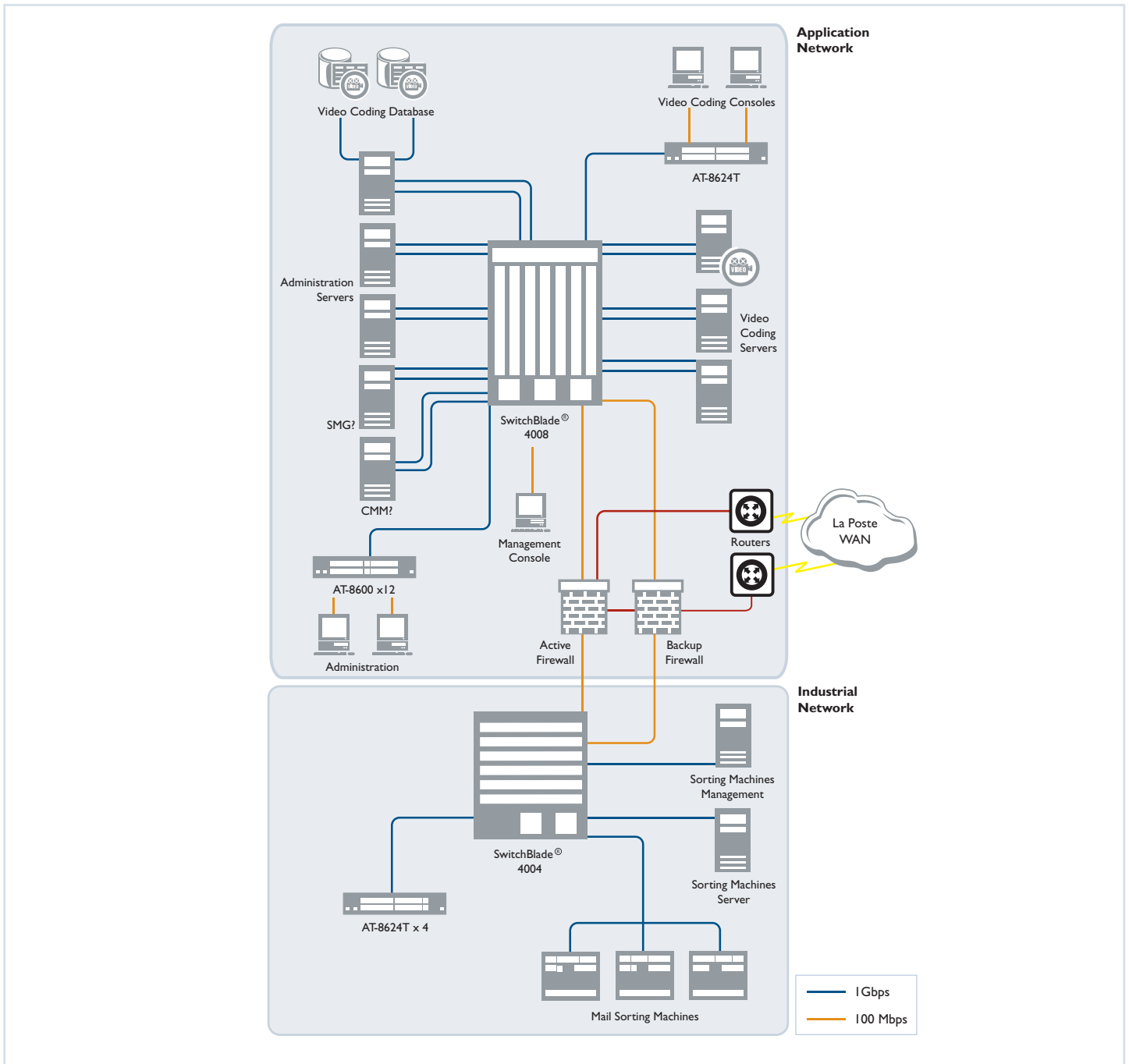
Complementing the core switches, AT-8600 series layer 3 switches connect to video coding consoles, administration workstations, and other PCs. The AT-8600 series switches connect to the core SwitchBlade® 4000 switches with Gigabit fibre, and use copper to connect to workstations and consoles.

A mix of 24 and 48 port AT-8600 series switches meet connectivity needs, with a number of AT-8624PoE (Power over Ethernet) switches also installed to easily enable the future implementation of voice traffic across the IP network (VoIP).

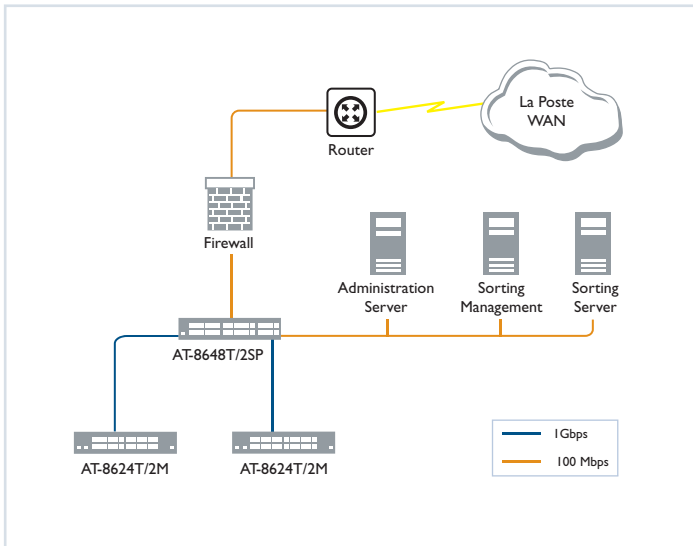


AT-8600 Series

# Case Study | La Poste, France



Large Sites



Small Sites

## Small sites

La Poste has approximately 450 smaller sites, each using between one and three AT-8600 series layer 3 switches which provide the network connectivity for smaller scale mail sorting, management and administration. At each location there is a firewall for security, and a router which connects all 500 sites together across La Poste's private WAN network.

## Benefits of the New Solution

### Reliability

Using Allied Telesis products allows La Poste to uphold and further their solid reputation for reliability. All Allied Telesis products are strenuously tested using Highly Accelerated Life Test (HALT) and Highly Accelerated Stress Screening (HASS) procedures. Under the Allied Telesis HALT regimen, products are tested well past specified tolerance limits for heat, cold, vibration, shocks, and drops, to ensure that they are more than robust enough for real-world conditions.

The reliability built into the network solution has key advantages for a company with such a large operation. With the control and

power redundancy of the SwitchBlade<sup>®</sup> 4000 switches in the network core, along with software features to ensure maximum uptime, the new infrastructure provides a stable and solid platform for mail management.

### Security

User authentication using 802.1X port authentication provides controlled access to network resources. User authorization on the network is managed with Access Control Lists (ACLs).

### Performance

The large amount of video and data traffic on the network is comfortably handled by the SwitchBlade<sup>®</sup> 4000 and AT-8600 series switches' wirespeed switching technology, in conjunction with multiple Gigabit connections both across the network and to high performance servers.

### Management

Seamless network provisioning and management is provided by AlliedView, Allied Telesis' network management software. By interoperating with SNMP-based HP OpenView (La Poste's existing network management platform), the network equipment provides a combination of tools to easily monitor network resources and performance.

### Scalable & Future Proof

30 - 1000 users per network provided a large degree of variation for requirements - Allied Telesis products were able to provide a solution to suit all networks. The flexibility of the modular SwitchBlade<sup>®</sup> 4000 series switches allows for any growth, and/or changes required to the network infrastructure in the future.

### Continuity

A common look and feel was achieved across the entire network for all sites, since the Allied Telesis products use a common Command Line Interface (CLI) and Graphical User Interface (GUI). The homogeneous operating system also reduces La Poste's operational expenditure.

### Partnership with the integrator

As a result of their long and solid history of market presence, Allied Telesis has a good relationship with the integrator, Siemens, and was able to work with them in collaboration to achieve the network La Poste required.

### Cost-competitive

A relatively small set of equipment was able to satisfy all sites and providers. The AT-8600 family of switches provide a highly intelligent security feature set, on a cost-competitive edge switch, providing best in class performance. Allied Telesis products provided La Poste with the optimum capital expenditure.

### Future implementation

As part of the continuing upgrading of La Poste's network infrastructure, a second phase of implementation will include additional features such as:

- Back-up links, which will be implemented in the network with Rapid Spanning Tree Protocol (RSTP). RSTP provides a redundant path between the SwitchBlade® switches at the core, and the AT-8600 series switches at the access layer.
- Control of IP address allocation for increased security with DHCP snooping, which effectively provides firewall functionality to the distribution of network addresses, ensuring any unauthorised network access is blocked.
- Voice traffic over the IP network (VoIP), which is a future possibility. With this in mind, a number of the AT-8600 series switches installed are capable of Power over Ethernet, which provides the ability to power devices over the data network, for example IP phones.

The ability to add all of these features in a timely fashion means that the network is future-proof. Add to this the reliability, security, and performance afforded by the Allied Telesis products implemented, and the resulting solution provides La Poste with a high-performing, efficient and cost-effective network, and one that will uphold their reputation for outstanding customer service.

### About Allied Telesis Inc.

Allied Telesis is part of the Allied Telesis Group. Founded in 1987, the company is a global provider of secure Ethernet/IP access solutions and an industry leader in the deployment of IP Triple Play networks over copper and fibre access infrastructure. Our POTS-to-10G iMAP integrated Multiservice Access Platform and iMG intelligent Multiservice Gateways, in conjunction with advanced switching, routing and WDM-based transport solutions, enable public and private network operators and service providers of all sizes to deploy scalable, carrier-grade networks for the cost-effective delivery of packet-based voice, video and data services. Visit us online at [www.alliedtelesis.com](http://www.alliedtelesis.com).

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