AVAYA

SFO
San Francisco International Airport

IP Telephony
Contact Centers
Mobility
Services

CASE STUDY

Avaya Global Services—Helping San Francisco International Airport Ensure the Highest Levels of Emergency Preparedness

Challenge:

A renewed focus on safety and security would require flawless network availability and reliability; a systematic disaster recovery plan; and sophisticated enhancements to the airport's communications capabilities

Solution:

The Avaya Global Services Business Continuity Assessment and System Security Assessments provided a clear blueprint that prioritized solution investments while taking the airport's emergency preparedness and security to a whole new level

Value Created:

- More Agile, Secure and Reliable Operations
- Faster Linkage of People, Processes and Resources
- Consistent, Branded Customer Experience
- Intelligent, Personalized Interactions with Customers
- Flawless Network Availability and Reliability
- Systematic Disaster Recovery Plan
- Expert Communications Support Partner

SAN FRANCISCO, California USA — As Charles Lindbergh awed the world with his 1927 solo flight across the Atlantic, the City of San Francisco saw the future and placed its bet. Believing that commercial airplanes would soon carry people in addition to freight, the City Supervisors staked out a cow pasture on the outskirts of the city and christened what would become one of the busiest airports in the United States. For more than 75 years, San Francisco International Airport (SFO) has continued to thrive, expanding from a staff of sixteen with fewer than 5,000 travelers in the first year of operation, to a current staff of 30,000 and annual passenger counts of more than 32 million.

Growth remains a major business theme for the airport. SFO began the new century in style with the completion of a nearly $3B self-funded expansion. Among the newest additions to the SFO campus is a 2.5 million square-foot international terminal — the largest in North America.

The Changing Role of Communications Technology

How does a business remain successful for more than seven decades? If you ask John Payne, SFO's Chief Information Officer, the answer is simple — *"It really comes down to your fundamental approach to managing change. At SFO, it's all about encouraging business innovation and staying focused on meeting the needs of your customers. "We have three primary groups of key stakeholders: the travelers who use the airport, our airline and concessionaire tenants, and the police, fire and Transportation Security Administration (TSA) personnel who ensure the safety of the airport. Although each of these groups has its own unique needs, each has an absolute expectation that SFO's communications infrastructure will be fully operational whenever it is needed."*

The Competition for Traveler Loyalty

"As time goes on, airline passengers are becoming more sophisticated, and their expectations around having an efficient and productive travel experience continue to rise. This is especially true when it comes to the availability and ease-of-use of communications technology while they're in the airport – whether it be plentiful network access for personal computers, strong cell phone coverage, or even the number of courtesy phones. "People don't usually think of airports as having competitive pressures like other industries, but we definitely do. In the case of SFO, there are two other regional airports nearby that could easily service many of our passengers. Bottom-line, if we don't meet our travelers' expectations, another airport will. "To help ensure passenger loyalty, we continuously are looking for innovative ways to enhance the airport's communications capabilities. In 2003, we launched 802.11a/b wireless broadband service

(WiFi), which gives travelers mobile PC access to email or the Web from anywhere in the airport. By the end of 2004, we will be the first U.S. airport to deploy 802.11g, which greatly increases the number of simultaneous users and supports speeds up to 54 Mbps. Our efforts are definitely paying off — in 2003, SFO was named the Most Tech-Friendly Airport in America by the Consumer Electronics Association in their annual passenger survey."

Information Technology Becomes a Profit Center

"The expectations of airport tenants are also rapidly changing. The economics of the industry shifted radically with competitive deregulation in the 1980s, and airlines continue to look for any opportunity to preserve their margins by lowering costs. "In terms of major trends, our airline and concessionaire tenants are increasingly looking for ways to better focus on their core businesses while reducing operating expense. To meet these needs, a new airport business model is emerging that is based on the principles of common use and shared tenancy. "Airlines pay fees for the use of airport facilities like passenger waiting areas and jet ramps. If a particular carrier doesn't have constant flights coming in and out, they can share gate positions and baggage handling systems with another airline to lower their expenses. When airlines use these common use areas, they depend on SFO's infrastructure for communicating with their personnel and for their ticketing system hook-ups. "Shared tenancy is really a managed services approach, where the tenants look to the airport to supply their entire communications infrastructure as well as on-going network support. When a tenant enters into this type of relationship with us, we will supply their telephony communications off our main voice server, and our IT group will provide day-to-day trouble shooting and maintenance support. Properly executed, it's a 3-way win — the tenant can stay focused on their business while reducing costs, and the airport has an additional revenue stream. "This shifting business model puts some serious demands on the performance of our technology. With tenants increasingly depending on the airport to provide their business communications infrastructure and support, our need for an ultra- reliable, always-on network has never been greater."

The New Focus on Safety and Security

"There is no arguing that September 11th has made a huge impact on the way major airports like SFO operate. Behind the scenes, communications technology is at the center of the action. "With the Federal TSA staff, E911, fire support and local police all depending on SFO's infrastructure, the stakes have never been higher in terms of our delivering flawless network reliability and availability."

Taking the right steps to help ensure emergency preparedness

The world events over the past few years have brought dramatic changes to the way in which airports approach emergency planning and security. As SFO's Operations Manager for voice communications, Jeff Farrington has a unique vantage point on these new realities. "Although we have always taken the reliability of our communications network extremely seriously, the current climate has put the need for tight network security and comprehensive emergency planning at the top of SFO's business priorities. Securing our voice network and eliminating any operational weak spots are absolute requirements in ensuring that SFO's communications network remains fully operational — no matter what the circumstances.

"When we took a hard look at our business continuity plans and the security and emergency readiness of our network, we concluded that this wasn't an area where we wanted to leave anything to chance. That was the point we decided to enlist an outside expert to conduct a systematic assessment of our emergency plans and potential network vulnerabilities."

Choosing a Business Continuity Expert

When SFO decided to standardize on an Avaya voice infrastructure several years ago, the airport also engaged Avaya Global Services to help with all aspects of network support.

"Since making the decision to partner with Avaya, we have had the opportunity to work with a first class Services team — from truly outstanding Project Managers who have delivered perfect implementations and upgrades, to super-knowledgeable maintenance technicians who keep all of our equipment and applications operating at peak performance. Topping off the Avaya support is our National Services Manager, who provides us with detailed insights on SFO's network performance and is our around-the-clock single point of accountability for all support activities.

"This has been such an impressive team that when we heard that Avaya had professional services specializing in secure and continuous communications, we quickly arranged for an initial discussion. After talking with their engineers, it was clear Avaya had the exact expertise that SFO was looking for."

Two Critical Assessments

As a result of that meeting, SFO asked Avaya to conduct two assessments that would directly address the operational integrity and emergency readiness of the airport's voice communications network.

"The Business Continuity Assessment focused on identifying potential network weak spots as well as gaps in our business continuity planning and processes. This assessment took place over a two-week period, with the Avaya engineers spending the first two days in detailed fact-finding. They inventoried and documented our entire physical infrastructure — from the contents of every cabinet and wire room, to all of the cross-campus cable runs and points of interface to our OC-48 SONET ring.

"Once they had a detailed understanding of the extent of our network and the location of all components, the Avaya team conducted a comprehensive review of our existing business continuity plans.

"The Avaya System Security Assessment zeroed in on SFO's central voice server and voice messaging system to help ensure that all possible measures had been taken to secure the voice network from external intrusion. We wanted to make sure that no one could get in and compromise the operation of the voice network, access proprietary system information or commit toll fraud.

"The security assessment was very methodical. Avaya looked at every possible point of entry into the voice network and assessed whether appropriate controls were in place. They truly left 'no stone unturned'.

"The Avaya approach to conducting a security assessment was also extremely efficient. Following a 60-minute call to launch the effort, the Avaya engineers were able to perform all of their intrusion testing remotely.

"The Avaya professional services engineers were just as impressive as the other members of the Avaya team. They had a very astute perspective on how SFO's technology supported our core business, and were also extremely knowledgeable with both voice and data. This cross-technology expertise was very important to us since we have an IP-enabled central voice server and are moving increasingly toward a converged architecture."

Recommendations and Business Impact

Once the assessments were complete, Avaya developed and presented two reports that detailed the findings and recommendations.

"The System Security Report was extremely thorough and highly specific. We have seen security assessment output from other firms, and most of it has been very general — typically an assortment of generic boilerplates.

"The Avaya Business Continuity Report was just as comprehensive as their System Security deliverable. Several members of the SFO team have had experience in preparing disaster recovery plans, but no one had ever seen a report that was this detailed and systematic. Every critical aspect of ensuring business continuity was addressed — from SFO's optimum network architecture, to the best location for our emergency command center and the specific prioritized tasks for each key employee.

"From SFO's perspective, both of these assessments had extremely high business value and completely met all of our expectations. Avaya definitely had the right skills and experience for the job."

CIO Payne sees it the very same way — *"Although any well-run business realizes the importance of securing their network and being prepared for emergencies, very few have the necessary internal skills — or time — to properly address these critical needs. For the vast majority of enterprises, engaging an expert partner is definitely the way to go to ensure that emergency planning is tight and your communications network is well protected from unauthorized access.*

"The Avaya engineers presented us with no-nonsense recommendations based on very systematic, fact-driven assessments. The Avaya Business Continuity and System Security Assessments gave us exactly what we were looking for – a clear blueprint that would allow us to prioritize our investments while taking the Airports emergency preparedness and security to a whole new level."

Learn More

For more information on how Avaya can take your enterprise from where it is to where it needs to be, contact your Avaya Client Executive or Authorized Avaya BusinessPartner, or visit us at **www.avaya.com**

ABOUT SAN FRANCISCO INTERNATIONAL AIRPORT

SFO connects non-stop with more than 60 cities in the United States on 27 domestic airlines, including more non-stop flights to the East Coast than any other Bay Area airport. In addition, SFO offers non-stop links with more than 30 international carriers, making SFO the Bay Area's Airport of Choice. For more information about SFO, visit www.flysfo.com

Services

- Avaya Global Services Business Continuity Assessment
- Avaya System Security Assessment
- Avaya Implementation Services
- Avaya Global Services Maintenance Agreement
- Avaya National Service Manager Support

All statements in this Case Study were made by John Payne, Chief Information Officer at San Francisco International Airport.

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