

## China Telecom Dials into Attachmate Reflection X



China telecommunications Corporation is the largest wireline telecommunications and broadband services provider in the world. Managed by the central government of China, the company has 670,000 employees and offers telecommunications and information services that include wireline voice, mobile voice, data, video, and multimedia.

In addition to owning the world's largest fixed-line telephone network, China Telecom has 208 million wireline access lines, 44 million broadband subscribers, and close to 28 million mobile subscribers.

### New 3G Service Requires Modern Interface, Stronger Security

In January 2009, China Telecom was awarded a CDMA2000 3G license from the Chinese government. Once the company set about introducing the 3G service, network complexity increased significantly. In addition to a surge in customers upgrading to the 3G offering, there were suddenly more applications running on multiple platforms. Network management and data security became top priorities.

"Our previous network management tool was outdated," said China Telecom Engineer Chen Gang. "Its response time was slow, and it didn't offer any graphical representations of the complex data on our UNIX host or ANSI terminals. That meant we couldn't always guarantee our customers a speedy resolution for 3G service issues."

Security was another area of concern. China Telecom administrators had been using a Windows front-end system, along with FTP or Telnet, to access host data. "Given the nonsecure nature of FTP and Telnet, there was definitely room to improve the security of this process and protect customer data," said Mr. Chen.

What China Telecom needed was an all-in-one solution that would facilitate network management—giving data centre administrators fast, hands-free access to host data—and strengthen security around file transfers. Better customer service was the ultimate goal.

### The All-in-One Solution

China Telecom looked at a number of options to connect their Windows-based data centre to the UNIX host. But everything fell short—except for Attachmate Reflection® X. "The other options did not compare to

#### QUICK VIEW

##### Problem

A significant network upgrade to support newly awarded 3G services required that China Telecom replace a slow, outdated system for accessing UNIX hosts.

##### Solution

Reflection X provides:

- A Graphical User Interface (GUI)
- Secure desktop-to-host communication
- Multiple functions in a single solution

##### Results

- Improved productivity
- More secure customer data
- Lower software costs
- Better customer service

Reflection X, which has the flexibility to meet all of our needs," Mr. Chen said. "It provides fast access, more security, support for the X11R6.9 standard Windows system, and integration with browser-based management tools."

With a powerful PC X server, VT terminal emulator, and secure FTP client, Reflection X covers the full spectrum of UNIX-based host access needs. This multipurpose solution lets administrators easily launch a graphical UNIX application using a desktop shortcut. It also provides all the flexibility of a Windows application, allowing administrators to copy and paste text and images from Windows to UNIX, and vice versa.

Reflection X is designed to meet both internal and external security requirements for compliance with mandates driven by PCI audits, Sarbanes-Oxley, HIPAA, and Basel II. In addition to providing the latest SSH, SSL/TLS, and Kerberos encryption and authentication technologies, Reflection X is validated for FIPS 140-2 and certified for DoD PKI—the U.S. government's top security standards.

The company has now implemented the Attachmate solution in 10 data centres across the country. As a result, administrators can easily access the X Window environment and host information via their PCs and ANSI terminals.

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– Chen Gang,  
Engineer,  
China Telecom

### **Saving Time and Money**

Reflection X provides a PC X server, VT terminal emulator, and secure FTP client—all in one deployment package. The product’s broad-based functionality has served China Telecom well. “We’ve saved money on software purchases because Reflection X meets all our requirements in one solution,” said Mr. Gang. “Other offerings on the market didn’t have its functionality.”

Furthermore, Reflection X displays graphical and 3D X applications with unrivalled speed and accuracy. According to Mr. Gang, employees are more productive as a result. “Thanks to Reflection X, we now have spare resources that we can use to improve other aspects of our business—such as our 3G service.”

In addition to protecting sensitive data, Reflection X also saves the company time—and therefore money—with its file transfer capabilities. “Reflection X enables automated file transfers with drag-and-drop, command line, and

API file transfer interfaces that support a broad range of protocols, including FTP, FTP/S, and SFTP,” said Mr. Gang.

### **A Smooth Implementation**

China Telecom worked closely with Attachmate to ensure the implementation went smoothly. The company also wanted to use Reflection X to its fullest potential. According to Mr. Gang, Reflection X has built-in configuration wizards and templates that were helpful when installing the software. “It takes less than a minute to complete an install for each end user, which our IT department was very happy about,” he said.

“We are very pleased with the performance of Reflection X, and the time and cost savings it has brought to our business. We plan to purchase additional Reflection licenses in the coming months.”



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