LUCENT TECHNOLOGIES: ACHIEVING THE “IMPOSSIBLE” BY USING PROVISIONING AND POSTPONEMENT

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In June 1998, Lucent Technologies had the opportunity to replace the digital switches for a large network in Saudi Arabia. The existing network was not Y2K compliant, and the existing vendor was not able to bring the system into compliance in accordance with the customer's requirements. The customer solicited a bid from Lucent.

The project would be worth hundreds of millions of dollars, and could be expected to lead to significant additional business, but only if Lucent was able to complete the installation by mid-1999, in time to allow full testing well before January 1, 2000. Lucent's digital switching product, the 5ESS® Digital Switch, was sophisticated and custom built, usually taking between twenty-three and twenty-five weeks to deliver from the time an order was placed. In order to meet the Saudi deadline, Lucent would have to deliver within three weeks of receiving the details for each of the sites where switches were required.

To further complicate the situation, Saudi Arabia was supplied by Lucent's Tres Cantos factory in Spain, which did not have sufficient capacity to meet the needs of this potential order. Lucent's European organization used a different engineering system than the United States, so assemblies could not be built in the company's large Oklahoma City plant for use in Europe or Saudi Arabia.

In order to obtain this business, Lucent had to find a way to overcome capacity constraints, as well as to dramatically improve delivery time. And it had to solve these problems quickly, since the customer needed to move fast, with the Y2K deadline rapidly approaching. Lucent's response was expected within a week.

1. Lucent Technologies and the 5ESS® Digital Switch

Lucent Technologies was formed from the 1995 restructuring of AT&T. Lucent focused on communications equipment, and included the AT&T's research organization, Bell Laboratories. Lucent went public in April 1996 when AT&T sold approximately 17.6% of its holdings for just over $3 billion. It became fully independent when AT&T distributed the balance of its holdings to shareholders in September 1996 in the largest stock distribution in United States history.

When it became independent in 1996, Lucent operated in more than ninety countries, and was organized into four units, the largest of which was the Network Systems, which generated more than half of Lucent's revenues, and manufactured the 5ESS® Digital Switch. This unit provided networking systems and software to local and long distance telephone companies and cable companies.

The 5ESS® was Lucent's flagship product—a large-scale, software-based digital switching platform that provided digital, voice, data, video, wired, or wireless communications service. It connected end-users to central phone offices, and phone offices to each other. A full sized switch was capable of serving up to two hundred fifty thousand subscriber lines (connecting end-users to a phone office), and over one hundred thousand trunk lines (connecting phone offices to each other).

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1 5ESS is a registered trademark of Lucent Technologies.
2 Lucent had acquired much of its European operation from Philips, and it used a different engineering system, including different part number conventions, from that used in the United States.