Solution Overview

AT&T Wireless

AT&T Wireless (NYSE: AWE) operates one of the largest digital wireless networks in North America. With more than 17 million subscribers, including partnerships and affiliates, and revenue exceeding $10 billion, AT&T Wirel ess is committed to being among the first to deliver the next generation of wireless products and services.

Challenge

AT&T Wireless needed a versatile network model to manage the network using a network management operations support system (OSS). The chal lenge was to incorporate all the heterogeneous interfaces, and to represent all the essential information required to manage the network. The task was further complicated by the use of complex proprietary interfaces and different protocols leading to the need for a normalized resources model.

Solution

Using its telecommunications expertise and comprehensive knowledge of wireless management standards, Vertel developed a resource model in accordance with the guideline requirements of AT&T Wireless. Vertel also used its expertise in protocol mediation to ensure that the model could be readily translated to SNMP, CMIP and CORBA management protocols, allowing the widest choice of Network Equipment during the building of the network.

Benefits

AT&T Wireless elimi nated approximately nine months of development time that would have been required for their in-house developers to develop this model. The model was also developed in a phased manner, which facilitated concurrent development among the Vertel and AT&T Wireless teams.

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Connecting systems, software and carriers

AT&T Wireless: GPRS Resource Model Development

Figure 1 depicts a General Packet Radio System (GPRS) logical architecture showing the many different interfaces and protocols used in the building of today's advanced wireless systems. Vertel developed a protocol-neutral model for AT&T Wireless to enable the design, development and testing of network devices and configurations. They also developed a CORBA version of the model for validation and prototyping.
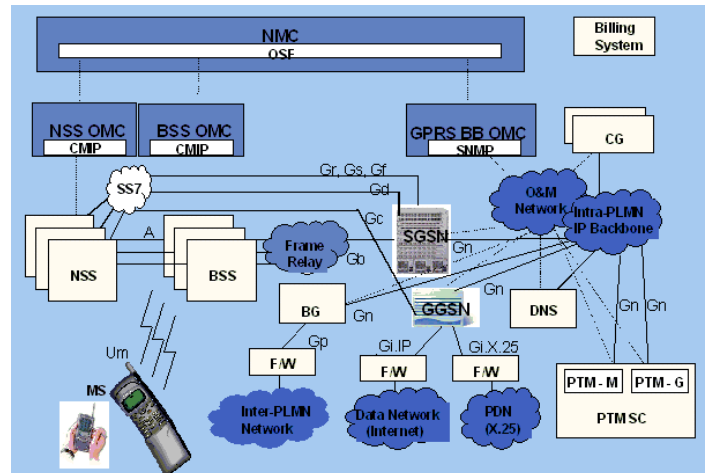

Figure 1: GPRS Logical Architecture

The GPRS network management resource model will be used by all operations support systems to manage the network and to provide GPRS services. The model is divided into a set of orthogonal components as shown in Figure 2.
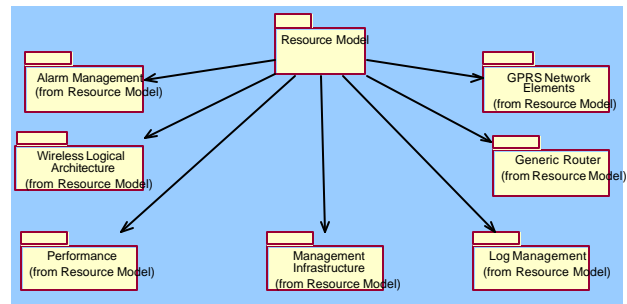

Figure 2: GPRS Model components