



## DETERMINING UPGRADE READINESS AT NEWLY ACQUIRED CELL SITES

### CASE STUDY

#### CHALLENGE

A major U.S. wireless carrier needs to assess the readiness of a newly acquired portion of its network to deploy new cellular and PCS equipment.

#### STRATEGY

Utilize the resources of a professional services provider with experience in multivendor, multitechnology, multiservice environments to determine whether a group of cell sites are ready for new equipment, and if not what types of modifications are required.

#### RESULTS

ADC conducted more than 150 audits of the carrier's cell sites, assessing the readiness for technology upgrades as well as documenting the overall performance of each individual site.



## BUSINESS CHALLENGE

In an effort to increase its geographic reach and expand coverage, a major U.S. wireless carrier acquired hundreds of cell sites from smaller regional network operators. Among these were 150 cell sites that the carrier wanted to assess quickly to determine their readiness for technology upgrades. As these sites were located in an important geography, the carrier sought a professional services partner that could meet an aggressive timetable while delivering highly detailed audit results.

ADC was selected to conduct the audits, based on its:

- Experience with multivendor, multitechnology, multiservice environments
- Strong presence throughout the United States
- Reputation for delivering projects on-time and on-budget
- Experience with wireless networks



## ADC SOLUTION

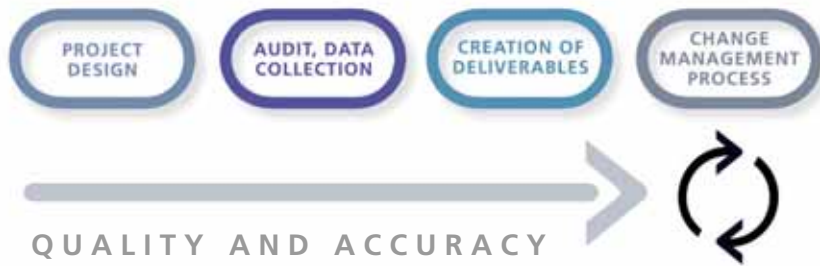
At the start of the project, ADC professionals determined the most efficient way to identify the cell sites was to categorize each site into one of three groups:

- Ready for new equipment
- Minor modifications needed
- Major modification needed

For each of the sites, ADC conducted a detailed audit covering general information about the site, its power infrastructure, installed equipment and antenna information.

The general information included:

- Site information
- Ground elevation
- Site location and access
- Type of cell site
- Fire prevention and lighting systems
- Safety assessment
- Floor plan drawings with cable rack overlays
- Aerial-view drawings



**A PROCESS-DRIVEN APPROACH TO ACCURATELY DOCUMENT:**

- Network build-out
- Engineering records
- Facility interconnects
- Equipment asset verification
- Plug-in modules
- Cable mapping
- Power and ground
- Tower and antenna

ADC conducted a complete and detailed examination of the power infrastructure at each site, which included information on:

- Site power
- DC power, rectifiers and power bay breakers
- AC power, power breaker, emergency back-up and power surge back-up
- AC power breaker
- Batteries
- Generator
- Grounding
- HVAC
- Power analysis
- Grounding schematic drawings
- Bay designation for the DC power bay
- Breaker panel inventory drawing

ADC also inventoried all the installed network equipment at each site, recording make, model, type, serial number and software version, where applicable. This included:

- TDMA/AMPS and DSX equipment
- Cable racks, cable entry points and shelter specifics

As well, ADC inventoried the antenna systems at each site, including:

- Antenna information
- Coax information
- Tower information

For each of these major areas, ADC provided detailed engineering diagrams and digital photos as supporting reference material, along with signal flow diagrams.

**BENEFITS**

As a result of the ADC’s professional audits, the carrier had up-to-date information on the upgrade readiness of each targeted cell site. Additionally, the carrier had detailed information on infrastructure and equipment for future planning purposes.

CASE STUDY



ADC Network and Inventory Audit Service ensures accurate and detailed reports and recommendations that affect operational areas including:

- Asset verification and recovery
- Engineering and planning
- Provisioning
- Trouble administration
- Facilities optimization

## ABOUT ADC PROFESSIONAL SERVICES

Through its Professional Services organization, ADC helps plan, deploy and maintain telecommunications networks throughout the United States and Europe. ADC's unique experience in multivendor, multitechnology, multiservice solutions makes ADC the ideal choice for projects that require an in-depth, hands-on understanding of simple to complex network environments.

### PLANNING SERVICES

- Project and Program Management
- Network Inventory and Audit
- Engineering

### DEPLOYMENT SERVICES

- Project and Program Management
- Engineering
- Material Services
- Preconfigured Equipment Solutions
- Power Services
- Installation Services
- Commissioning and Integration
- Decommissioning and Removals

### MAINTENANCE SERVICES

- Project and Program Management
- Network and Inventory Audit
- Preventive and Routine Maintenance
- Decommissioning and Removals

ADC Professional Services offers comprehensive solutions for network operators delivering voice, video and data services over wireless, wireline and cable networks. Learn more at [www.adc.com/professionalservices](http://www.adc.com/professionalservices)



### Web Site: [www.adc.com](http://www.adc.com)

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