By Alex Padalka

Consolidation and New Technology Are Forcing Firms To Stay Flexible

Rapid Changes Transform the Market, But Open New Opportunities

Changes in the telecommunications market over the past year have left industry firms feeling uncertain about the future. From the $8.5-billion Verizon takeover of MCI, the AT&T merger with Cingular and its $86-billion megamerger with BellSouth, to the emergence of the WiMax platform, designers are faced with less negotiating power and shrinking profit margins, but potentially more work in new technology business as the market continues to transform itself.

"We really saw [the telecommunications industry] bottom out in the summer of 2003," says Jeff Akers, president of the Enterprise Management Solutions of Denver-based CH2M Hill. "It is an industry that has changed in terms of its business structure and the way things get done, and the expectations that contractors should have in vendors and partners."

The recent consolidations have only reinforced the 800-lb gorilla image of telecommunications clients. "They are so big that they just don't feel the need to necessarily negotiate with you," says Bill Johnson, president of Birmingham-based North-Star Communications Group, a wholly owned subsidiary of BE&K Inc. "And there's enough smaller [firms] out there, people that are maybe not as savvy doing business that will sign those [contracts], and as soon as somebody signs it they can use it as leverage against the rest of us."

COURTESY OF BE&K

New View. Northstar, a subsidiary of BE&K, is installing switches, cell sites, lines/connectors and antennas for ZTE Corp. in Alaska.

But this pattern is starting to change, says John Small, president of Pasadena, Calif.-based Parsons Commercial Technology Group, as the large carriers are getting "burned" by some of those inexperienced firms. "There's a trend now toward single-source national-type agreements," he says. While the contracts are there for the major firms that do telecommunications work, the fees remain low. Small says Parsons has been cautious about its choice of clients. "Price is a definite factor, and it's pushed down what we can charge, and it's gotten to a point where a lot of our competitors have dropped out of the market."

Moreover, engineering and construction firms are finding fewer traditional wireline projects. The proliferation of faster wireless standards and the relatively ease with which last-mile connectivity can be achieved without cables have led to a significant decline in traditional wireline projects. "The wireline business has been in a steady decline and I don't see any change in the near future," says Small. In 2002, Parsons had 300 to 400 people working on BellSouth wireline projects—projects that involved underground cables, either copper or fiberoptic—when BellSouth was one of its biggest clients. Today, there are only about 50. Once a significant portion of the market, wireline is "going the way of the horse and buggy" Small says.

But some growth is expected in the wireline sector as a result of the proliferation of multi-technology platforms using one-access devices through an Internet Protocol (IP) backbone. AT&T continues work on Lightspeed, its $6-billion fiber-to-the-home project that will add 40,000 miles of fiber and reach 18 million homes by next year. Northstar has over 200 staff members working in outside plant engineering services for AT&T, primarily in California, Johnson says. Meanwhile, Verizon continues to expand its $20-billion fiber-to-the-premises FiOS service, with connection speeds of up to 50 Mbps, already available in several cities across 17 states.

According to a report by Insight Research, wireless telecom spending accounted for a third of total corporate communication costs. In the wireless business, equipment manufacturers increasingly are stepping in as integrators for large carriers seeking more turn-key solutions through a single entity. "Where in the past maybe Bechtel or General Dynamics were the big wireless integrators for the carriers directly, now you see someone like Ericsson, which is an equipment supplier, fill that role," says BE&K's Johnson. "They're stepping in as the prime not only to provide the equipment but to provide all of the services, and they're outsourcing a lot of those services to companies like ours, so we're seeing that model changing from what it used to be in the wireless industry."

Parsons has received similar contracts from clients like Nokia and Ericksson. Ericksson provided Parsons' largest telecommunications contract last year. Approximately 500 Parsons engineers worked on the project, primarily in engineer, furnish and install work (EF&I). In addition, the firm is picking up work from Cingular and Sprint Nextel in site development, which includes acquisitions and lease of existing sites or greenfield sites, all of the construction and equipment installation work, and a significant portion of the EF&I work, Small says.

Driving the wireless market is the continuous bid for data upgrades as major carriers expand their services to 3G networks. "While we're not going to see as many greenfield wireless sites, you'll see a lot of change-outs and upgrades," says Johnson. "The pace will not so much pick up as stay robust, but it has picked up since a year ago."

Flexibility Helps

Despite the opportunities created by new and developing technologies, industry firms are finding that they need to stay flexible and in some cases, even change their approach, to find profitable telecommunications work. "It's been quite difficult to make money in the telecommunications market in the past two to three years," says Small. "You've got to be agile and respond to change."

CH2M Hill has re-cast its telecommunications business to focus more on margin management consulting and technology integration than traditional telecommunications projects. While it still performs telecommunications and program management projects, Akers says the growing expertise of its staff has allowed the firm to branch into non-construction telecommunications work, including geospatial projects that provide spatial information management through tailored software applications and platforms to corporate clients.

"Alcatel, Lucent, Ericsson, Nortel and Nokia—they all sell their equipment to the same customers every year, so it's a very limiting customer base," says Akers. But when companies branch out into geospatial work, IT consulting and business processes, "the entire world can be your customer.... You end up with hundreds and hundreds of customers instead of just a handful," Akers says. ■

The Top 25 in Telecommunications

RANK*	FIRM	$ MIL.
1	Parsons	153.9
2	MACTEC Inc.	64.7
3	BE&K Inc.	47.8
4	KCI Technologies Inc.	38.7
5	Fluor Corp.	37.8
6	EYP Mission Critical Facilities	36.0
7	Jacobs	33.3
8	Syska Hennessy Group Inc.	32.0
9	Bechtel	29.0
10	Teng Affiliated Cos.	26.0
11	Edwards and Kelcey Inc.	20.1
12	TRC Cos. Inc.	18.6
13	Black & Veatch	18.5
14	L. Robert Kimball & Associates Inc.	13.6
15	Terracon	12.8
16	CDI Business Solutions	10.2
17	Corgan Associates Inc.	10.0
18	Clough Harbour & Associates LLP	9.8
19	Schoor DePalma Inc.	9.0
20	RTKL Associates Inc.	8.2
21	Dewberry	7.7
22	LFR Inc.	7.0
23	Michels Corp.	6.9
24	Hayes, Seay, Mattern & Mattern Inc.	6.7
25	Fugro Inc.	6.6

*BASED ON 2006 DESIGN REVENUE FROM TELECOMMUNICATIONS AS REPORTED IN ENR'S SURVEY OF LEADING CONTRACTORS AND DESIGN FIRMS.

The Top 10 in Towers and Antennae

RANK*	FIRM	$ MIL.
1	Parsons	68.1
2	MACTEC Inc.	64.7
3	Bechtel	27.0
4	Edwards and Kelcey Inc.	18.3
5	KCI Technologies Inc.	16.7
6	Black & Veatch	16.5
7	Terracon	12.0
8	Schoor DePalma Inc.	7.7
9	Dewberry	6.7
10	TECTONIC	5.7

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2006 PROVIDED BY INDUSTRY FIRMS PARTICIPATING IN ENR'S SOURCEBOOK MARKET SURVEY.

The Top 5 in Data Centers & Web Hotels

RANK*	FIRM	$ MIL.
1	Jacobs	33.3
2	Syska Hennessy Group Inc.	32.0
3	EYP Mission Critical Facilities	31.0
4	Teng Affiliated Cos.	9.0
5	Swanson Rink Inc.	3.1

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2006 PROVIDED BY INDUSTRY FIRMS PARTICIPATING IN ENR'S SOURCEBOOK MARKET SURVEY.

The Top 5 in Transmission Lines & Cables

RANK*	FIRM	$ MIL.
1	Parsons	85.8
2	BE&K Inc.	41.6
3	Fluor Corp.	37.8
4	KCI Technologies Inc.	22.0
5	CDI Business Solutions	10.2

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2006 PROVIDED BY INDUSTRY FIRMS PARTICIPATING IN ENR'S SOURCEBOOK MARKET SURVEY.