

Broadband Cellular Backhaul Solutions

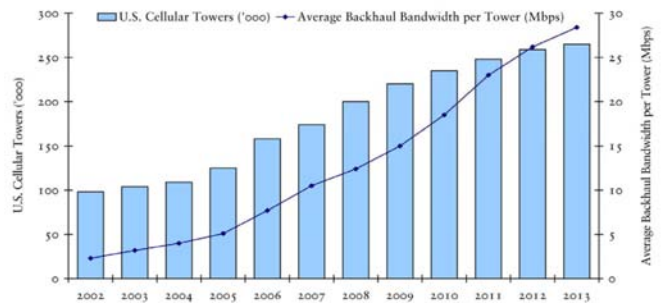
Cellular Backhaul Opportunities — Available Now

Market Expected to Grow to \$15 Billion by 2011*

Wireless providers are being challenged by increasing consumer demand for multimedia, high bandwidth applications. As a result, cell towers continue to grow in numbers, with even more bandwidth per tower for 3G and future 4G services. Estimates by Frost & Sullivan place mobile providers' requirements at close to 30 Mbps in the next 5 years. MSOs have a market advantage with fiber networks within close proximity to cell sites in residential areas, so time and costs required for a short line extension — and even redundant short line extension — is minimal. The market is growing, and MSOs are well positioned to provide backhaul services over fiber rich networks that are affordable and reliable.

*Source: Light Reading's Cable Industry Insider

Next Generation Wireless Networks Market: Cellular Tower and Backhaul Bandwidth Forecasts (U.S.), 2002-2013

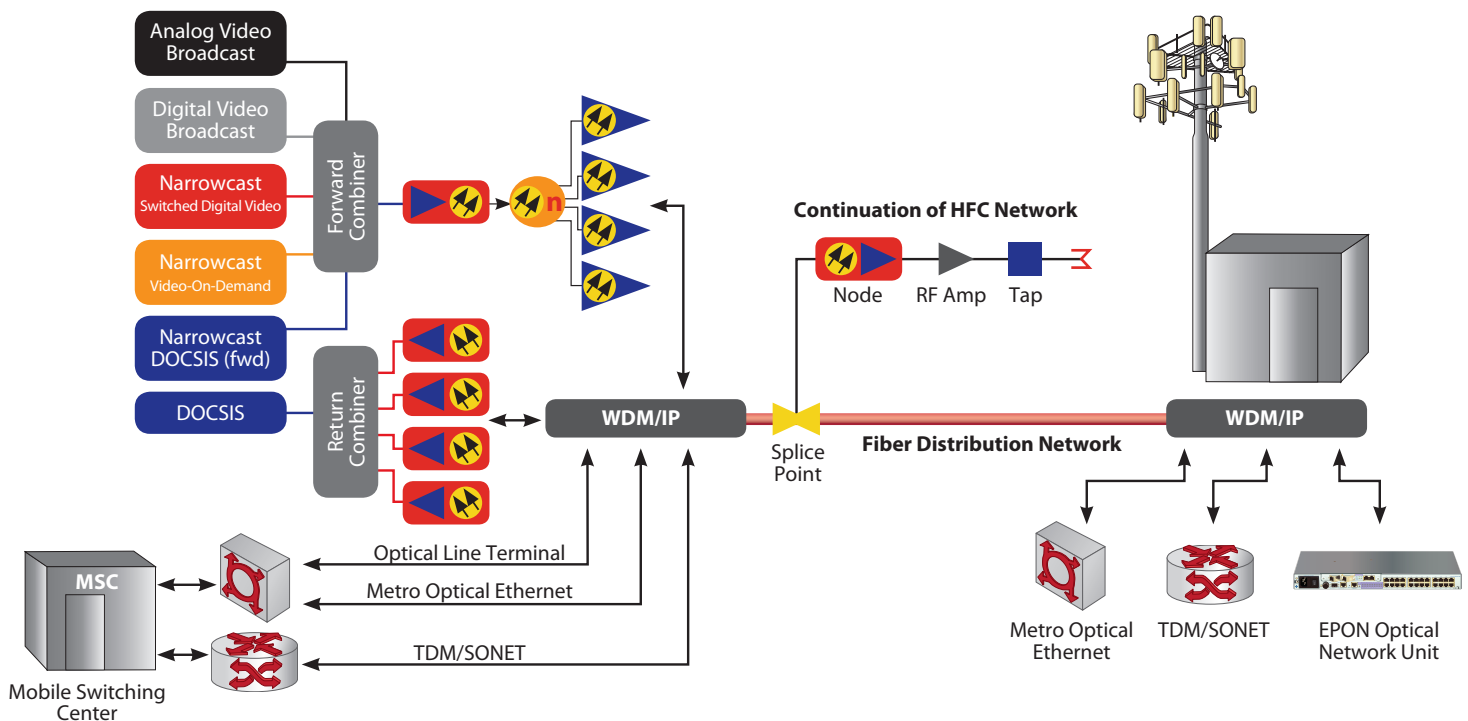


Note: All figures are rounded; the base year is 2007. Source: Frost & Sullivan

Headend/Hub

Outside Plant

Tower Site



Generate Revenue Sooner

With ARRIS Flexible Cellular Backhaul Solutions

ARRIS is ready today with flexible solutions that can have you up and running in the Cellular Backhaul business faster. ARRIS has everything you need under one roof, minimizing delays commonly encountered with third party coordination. From project management and professional services, to optical solutions and plant construction equipment, we have all of the elements necessary to get you operational and generating money faster.

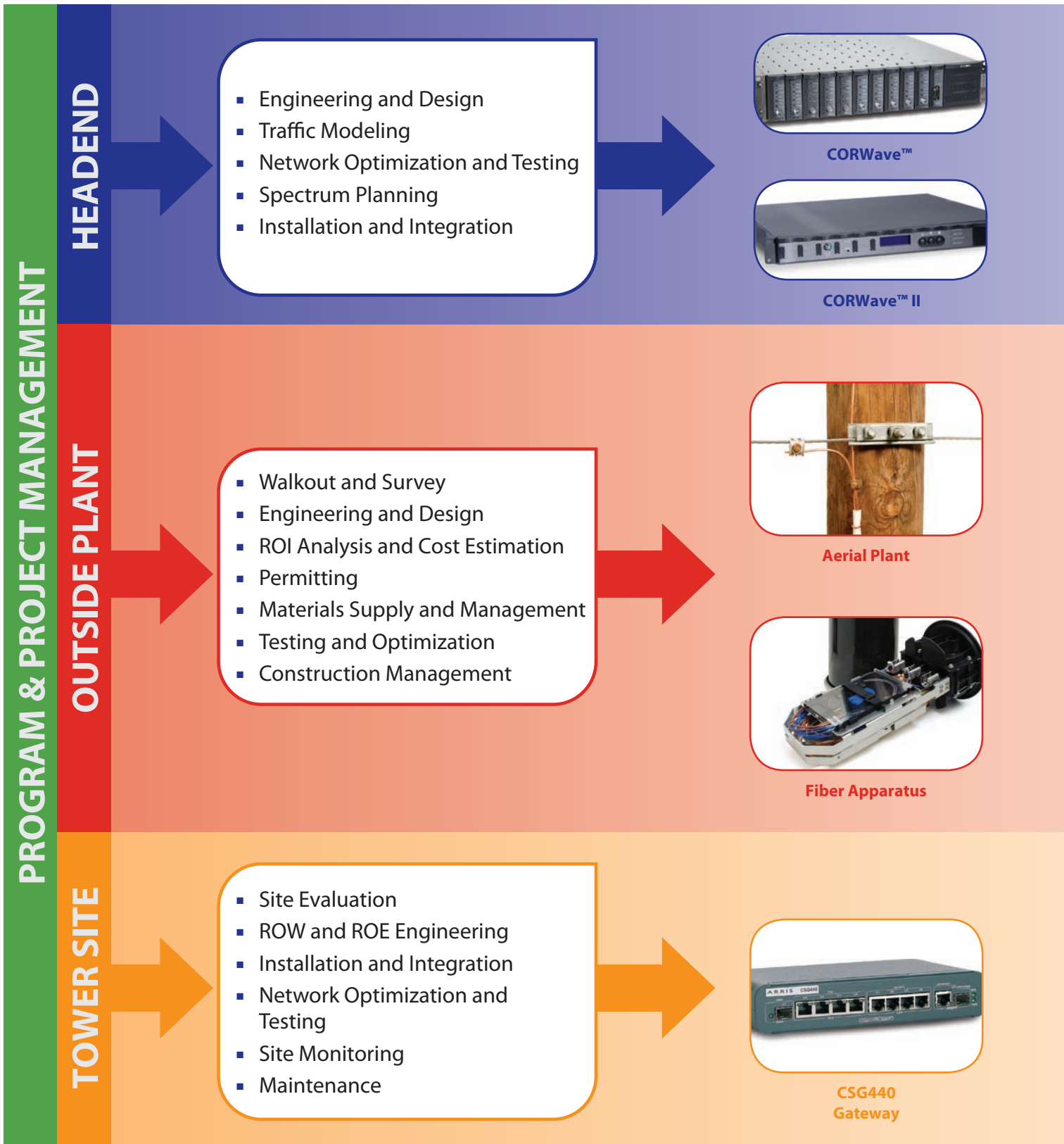
ARRIS Professional Services — a Complete Portfolio

Expertise in Design, Engineering, and Support for Broadband Cellular Backhaul Integration

Cellular Backhaul services require stringent, “five nines” performance and reliability. ARRIS Professional Services provides exceptional quality network design, integration, deployment, technical consulting, and outsourcing services to network operators. For temporary or long-term deployment and dependable technical assistance, the experienced and highly skilled ARRIS engineers and technicians are only a phone call away.



Professional Services



Network Components



**CORWave™ LGX Style
Headend Optical Passive**



CHP Max5000® EDFA



**Dual Return
Path Receivers**



**FTTMax™ EPON OLT
(Optical Line Terminal)**



**Underground Plant
Installation Products**



**Opti Max4100/3100
Optical Passives**



Safety Equipment



**Opti Max4100
Segmentable Node**



Testing & Measurement Gear



Tools



**CSA9000
Aggregator**



**FTTMax™ EPON
Optical Network Unit**



Tower Site Connectivity

Headend/Hub

Assign/Reassign Wavelengths — Enable New Services



CORWave™ / CORWave™ II

The CORWave series of optical multi wavelength forward transmitters provides up to 16 wavelengths over as few as one fiber and up to 65 km reach, freeing up existing spare fiber for new services such as cell tower backhaul. Cable operators can light up cell tower backhaul services quickly, easily and with less capital investment than laying new fiber runs.



CORWave™ LGX Style Headend Optical Passive

This technician friendly device provides optical muxing and demuxing of multiple wavelengths for headend transmitters.



CHP Max5000® EDFA

The ARRIS erbium-doped fiber amplifiers are used to economically amplify optical signals in the field as opposed to the headend or hub, extending reach for fiber deep architectures.



CHP Max5000® Dual Return Path Receivers

CHP Max5000 dual return path receivers provide superior return path delivery capability and performance required for advanced two way services such as VoIP and excellent carrier to noise in a highly dense platform that conserves valuable headend space. Redundant modules provide optical path and hardware protection to prevent system interruption.



FTTMax™ EPON OLT (Optical Line Terminal)

Designed for use in a CHP Max5000 headend system, the FTTMax EPON OLT blade allows cable operators to economically deploy gigabit Ethernet services for small/medium businesses and residential customers in passive optical networks.



Tower Site

Connect Cell Site — Provide Increased Capacity for Cellular Carriers



CSG440 Gateway

The Commercial Services Gateway provides fully-managed Fast and Gigabit Ethernet demarcation gateways with up to 4x T1/E1 CES connectivity over Ethernet/IP Fiber networks.



CSA9000 Aggregator

The Commercial Services Aggregator provides advanced L2/L3 and T1/E1 connectivity over IP/Ethernet Fiber or HFC networks and can be used for private line and PBX interconnections in small-to-medium businesses; data connectivity and cellular backhaul from cell sites.



FTTMax™ EPON Optical Network Unit (ONU)

The ARRIS family of ONUs supports multiple services such as high speed data, VoIP, and wireless for residential and small-medium business subscribers. These feature-rich devices allow operators to create subscriber networks flexibly, efficiently, and tailored to suit customer needs.



Tower Site Connectivity

ARRIS carries all the cables, jumpers, wiring harnesses and other connectivity devices needed for tower site installations.

Outside Plant

Enhance Network — Extend Reach



Aerial Plant

ARRIS stocks a full line of aerial plant construction products including strand, lashing wire, pole line hardware, grounding and bonding products, heat shrink, and more.



Underground Plant Installation Products

Conduit, vaults, pedestals, cabinets — even cable blowing and pulling equipment — are all part of the underground construction products portfolio provided by ARRIS.



Opti Max4100 Segmentable Node

Used for the conversion of optical to RF signals in HFC networks, the Opti Max 4100 optical node provides an upgrade path from 1 x 4 to a full 4 x 4 segmentation with the addition of optical transmitters and receivers that allow cable operators to reduce service group sizes and easily deploy new services on an 'as-needed' basis.



Opti Max4100/ 3100 Optical Passives

Ergonomically designed optical multiplexing/demultiplexing node devices are designed to facilitate multi wavelength solutions without fusion splicing or complex fiber routing. These optical passives provide test points for optical power measurement without service interruption.



Safety Equipment

ARRIS provides an array of safety equipment from trusted manufacturers, including aerial safety, work area protection, personal protection and much more.



Fiber Apparatus

ARRIS supports its optical solutions with a full line of fiber apparatus products — like splice enclosures, FRSC, storage loops, cabinets, and modules.



Testing & Measurement Gear

ARRIS helps you keep up with demand offering innovative test equipment to activate more services — faster. We have the products you need for simple or complex installations from Fluke, Greenlee/Tempo and more.



Tools

The right tool makes a big difference when trying to do more installations in a shorter amount of time. The wide range of tools available from ARRIS provide problem free performance and exceptional durability.

Program & Project Management

Manage and Control — Execute Faster and Better



The ARRIS Program Management and Implementation Group includes a veteran team of technical professionals with extensive real-world, hands on experience. We guide your entire project — from the initial needs assessment and solutions design through development, trial deployments, full rollouts, and life-cycle support. In addition, ARRIS has strong alliances with major technology companies and systems integrators which provide seamless access to best practices from other industry leaders to provide you a complete turnkey solutions.



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