

International Research Center's Side-By-Side Comparison Clarifies Video Choices For Consumers

PHOENIX (August 6, 2001) - During the past 12 months, Phoenix has become one of the most competitive video, telephone and high-speed Internet markets in the country as cable and satellite television providers upgrade their systems and broaden their offerings in a battle to win over customers. Even the local phone company, or incumbent local exchange carrier (ILEC), has gotten into the act.

While television enthusiasts and regular home viewers alike benefit from such a highly competitive market because they have more programming and numerous options to choose from, it has become increasingly difficult to make a side-by-side comparison of the available products, said Mark Goldstein, president of International Research Center (IRC), a strategic consulting and contract research provider based in Phoenix.

"An apples-to-apples comparison of multi-channel entertainment and related products such as Internet access is challenging at best and often nearly impossible for the consumer," Goldstein said. However, when all things are considered including today's video and high-speed data services as well as tomorrow's expansion capabilities, cable is the overall winner. Nevertheless, the technical differences in the delivery systems, the diversity of programming, packages, and price points, as well as the varied language used to describe the channels and features can be difficult to decipher and even more difficult to compare.

To assist consumers in making informed and intelligent entertainment decisions, International Research Center has conducted an extensive review and analysis, producing an objective comparison of video and related services offered in the Phoenix area, Goldstein said. IRC's resulting comparison of DISH Network, DirecTV, Cox Communications and Qwest Communications follows below and is also available online at <http://www.researchedge.com/>.

Satellite, cable, and telephone-based services all offer a large number of video channels and programming options making the decision even more difficult for consumers, Goldstein said. While each one offers movies, pay-per-view, music channels, and Internet capabilities, there are many distinct differences that may appeal to different customer interests and needs. While satellite services appear to have some price and channel advantages in the short term, including the most channels at the lowest monthly rates for their basic video packages, a number of factors also tend to favor cable, Goldstein said.

While all of the providers offer a wealth of national video channels, the variety of local channels remains very limited for the satellite services, with Cox and Qwest carrying many more local broadcast stations (14 vs. 5) as well as government, education, and public access stations. Cox also offers a number of unique local special channels like Cox 9 which airs Phoenix Suns and other local sports, the

Arizona News Channel, ¡Más! Arizona, and Maricopa Colleges TV. All providers have extensive premium movie packages and pay per view (PPV) programming, but only Cox and DirecTV have substantial sports packages available, while DISH Network and Qwest VDSL offer limited or no sports packages. More than 200 channels of video programming plus some 40 channels of stereo music can be accessed at the higher end for all providers, except Qwest who carries a significantly lower number of total video channels. Cox delivers a very competitive high-end video offering today and clearly has the largest system capacity, which can best support the addition of many more video channels as well as new interactive services in the future.

A crucial consumer concern remains availability of the desired services. Traditional cable programming is available to virtually every home in the Valley and Cox's local digital video upgrades are mostly done, with the entire upgrade expected to be complete by early next year. Satellite service is broadly available to all residents with a clear view of the southern skies and able to install a small dish at their residences, perhaps limited by some restrictions in multi-tenant environments. However Qwest has yet to make the requisite investment in fiber to the neighborhood (FTTN) and related equipment for most of the Valley and their video service availability remains quite limited. Thus, consumers are strongly advised to directly check with the providers to assure that the services they want are already available to their individual locations or soon to be accessible.

While the satellite systems now do offer high-speed Internet service, their capacity and capabilities are limited by their underlying technology to modest download speed and even more limited upload speeds. Their performance is easily outstripped by Qwest's DSL rates, which are in turn superceded by Cox's Internet performance. Cox is the clear winner of the high-speed Internet comparison with the fastest speeds at the lowest cost. Further, Cox and Qwest are the only providers delivering voice telephony and thus offering cost-saving and easy-to-use packages of multiple services that provide customers with the convenience of having one provider and one bill for all their telecommunications needs.

The cost difference between the various packages and options can be quite difficult to compare Goldstein said, because the providers have chosen to bundle or charge extra for features such as local broadcast channels, service calls or extra television hookups. For example, satellite providers always require long term contracts to obtain their discounted, though still higher, installation costs. On the other hand, Cox with their basic video package can be hooked up to an unlimited number of televisions in a household at the same price. IRC's chart compares basic, typical, and high-end offerings largely equalized for such factors.

Consumers first must take the time to determine what they are really looking for and then sift through the wide variety of offers and marketing campaigns, Goldstein suggests. They must carefully consider the recurring monthly costs as well as the cost of equipment, whether long-term contracts are

required, and how much they will have to pay for installation and any subsequent service calls. The key is to carefully assess all the available information, made simpler by this comparison chart, he said.

While advanced digital television services such as video on demand (VOD), personal video recording (PVR), and interactive TV (ITV) are still in their infancies, they will become increasingly available to home viewers and will absolutely transform the consumers' video experience going forward. And while today's high-speed data rates seem sufficient for our current Internet use, tomorrow's applications and streaming media will require data rates beyond the capabilities of some providers' networks. "Cable systems like Cox, with fiber-optic capability now reaching into most neighborhoods and expected to be Valley-wide early next year, have by far the greatest amount of system bandwidth," Goldstein said. "This should provide a sustainable advantage in rolling out new content channels and interactive services while continuing to deliver Internet connections at ever higher speeds in the years to come."

About International Research Center:

International Research Center (IRC - <http://www.researchedge.com/>) is an Arizona-based strategic consulting and contract research service provider. Harnessing global information resources for informed decision making, IRC provides custom research and strategic support for business, legal, and public policy clients in a variety of high-technology disciplines and arenas, concentrating on telecommunications, information technology, eContent and the Internet. For further information, contact Mark Goldstein at 602-470-0389 or <mailto:markg@researchedge.com>. This press release may be found on IRC's web site at <http://www.researchedge.com/news/pr080601.html>.

Consumer Video & Data Service Comparisons For the Phoenix Area Market - August 2001 By International Research Center

	EchoStar DISH Network	DirecTV	Cox Communications	Qwest Communications
Installation/Service Costs				
Standard Installation Cost (Vary by bundling/incentives)	\$99 & Up or 12 month contract	\$49.99 & Up or 12 month contract	\$19.95 No contract required	\$29.95 No contract required
Service Calls	\$70/Hour	\$5.99/Month	Free	\$29.95/Visit
Basic Video Package	America's Top 50	Select Choice	Cox Classic	ChoiceTV
Monthly Rate With Local Stations	\$32.97 (2 receivers on 2 TVs)	\$32.97 (2 receivers on 2 TVs)	\$37.95 (Unlimited TV outlets)	\$37.95 (1 gateway on 3 TVs)
Total Video Channels	110	108	81	129
National Video Channels	71	47	54	75
Local Broadcast Channels	5	6	13	14
Local Special Channels	0	0	7	6
Premium Movie Channels	29 (Extra \$)	0	5 (Extra \$/Converters)	27 (Extra \$)
Pay Per View Channels	34 (Extra \$)	55 (Extra \$)	2 (Extra \$/Converters)	34 (Extra \$)
Audio Channels (Stereo)	0	5	0	45
Typical Video Package	America's Top 100	Total Choice	Cox Digital Select	ChoiceTV
Monthly Rate With Local Stations	\$41.97 (2 receivers on 2 TVs)	\$42.97 (2 receivers on 2 TVs)	\$54.45 (2 converters on 2 TVs)	\$37.95 (1 gateway on 3 TVs)
Monthly Rate With Local Stations & 2 Premium Movie Services	\$61.96 (2 receivers on 2 TVs)	\$60.97 (2 receivers on 2 TVs)	\$69.45 (2 converters on 2 TVs)	\$53.90 (1 gateway on 3 TVs)
Total Video Channels Without/With 2 Premium Movie Services	151/162	180/190	165/180	129/138
National Video Channels	104	77	79	75
Local Broadcast Channels	5	6	13	14
Local Special Channels	0	0	11	6
Premium Movie Channels	29 (Extra \$)	31 (Extra \$)	27 (Extra \$)	27 (Extra \$)
Pay Per View Channels	34 (Extra \$)	55 (Extra \$)	37 (Extra \$)	34 (Extra \$)
Sports Package Channels	6 (Extra \$)	42 (Extra \$)	25 (Extra \$)	0
Audio Channels (Stereo)	32	31	45	45
High-End Video Package	America's Top 150	Total Choice Platinum	Cox Digital Deluxe	ChoiceTV w. Deluxe Premium Plus
Monthly Rate With Local Stations & All Premium Movie Services	\$86.96 (2 receivers on 2 TVs)	\$88.98 (2 receivers on 2 TVs)	\$87.45 (2 converters on 2 TVs)	\$74.90 (1 gateway on 3 TVs)
Total Video Channels	213	236	204	156
National Video Channels	139	102	93	75
Local Broadcast Channels	5	6	14	14
Local Special Channels	0	0	11	6
Premium Movie Channels	29	31	27	27
Pay Per View Channels	34 (Extra \$)	55 (Extra \$)	34 (Extra \$)	34 (Extra \$)
Sports Package Channels	6 (Extra \$)	42 (Extra \$)	25 (Extra \$)	0
Audio Channels (Stereo)	48	31	45	45
System Capabilities				
Geographic Service Availability	Excellent (Possible line of sight & MTU issues)	Excellent (Possible line of sight & MTU issues)	Very good & expanding (Valley-wide 1Q/02)	Very limited (Distance & line quality issues)
System Bandwidth Capacity Downstream/Upstream	<=768 MHz/.01 MHz (Per Satellite)	<=768 MHz/.01 MHz (Per Satellite)	700 MHz/36 MHz	5.4 MHz/1 MHz (26 Mbps/3 Mbps VDSL)
Future Expansion Potential Additional Content Channels	Excellent	Excellent	Excellent	Fair
Future Expansion Potential VOD, PVR, Streaming Video, Interactive Features & Services	Limited	Limited	Excellent	Fair

Consumer Video & Data Service Comparisons for the Phoenix Market

	EchoStar DISH Network	DirecTV	Cox Communications	Qwest Communications
Video Service Notes				
Local Special Channels	None	None	Arizona News Channel, Cox 9 (Phoenix Suns & other local sports), CLIC, ¡Más! Arizona, MCTV, Cox Auto Channel, Cox Real Estate Channel, Public Access, Education Access, Leased Access, Government Access	Qwest Channel, Public Access, Education Access, Leased Access, Government Access
Sports Packages	MLS	NBA, NHL, WNBA, MLB, MLS, NFL, College Basketball & Football	NBA, NHL, WNBA, MLB, MLS, College Basketball & Football	None
High-Speed Internet/Data Residential Connections	StarBand	Hughes DirecPC	Cox@Home	DSL Deluxe
Monthly Rate for Service With unlimited usage	<=\$69.99 w. ISP (StarBand Reseller)	\$49.99 w. ISP (or \$39.99 w/o ISP)	\$29.95 w. ISP	\$34.95 w. ISP (or \$29.95 w/o ISP)
Internet Downstream/Upstream Data Rates	150-500 Kbps/ 40-60 Kbps	Up to 400 Kbps/ Up to 33.6 Kbps	Up to 3 Mbps/ Up to 256 Kbps	Up to 640 Kbps/ Up to 256 Kbps
Internet/Data Notes	Bi-directional satellite link	Other \$/metered plans available, Telco return (Bi-directional pending)	DOCSIS allows up to 30 Mbps downstream data rates, VPN & Telework solutions	Choice of ISPs, Other \$/speeds available
Future Expansion Potential Internet/Data Rates	Limited	Limited	Very Good	Fair
Web Site URLs	dishnetwork.com	directv.com	cox.com/phoenix	qwest.com/vdsl

Updates: 8/8/01 - Adjusted DISH Network America's Top 100 National & Total Video Channel and Audio Channel counts; Adjusted DISH Network America's Top 150 National & Total Video Channel counts; Corrected satellite System Bandwidth Capacity Downstream & split Future Expansion Potential to separate Content Channels and other advanced capabilities

Notes: International Research Center has reviewed current public pricing and programming package information for the providers and calculated consumer offerings, pricing, and channel counts from available details. Please contact us for further information or to provide revised relevant provider details.

Contact: Mark Goldstein, President, International Research Center, PO Box 825, Tempe, AZ 85280, Voice & Fax: 602-470-0389, <mailto:markg@researchedge.com>, URL: <http://www.researchedge.com/>

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