



GENESIS TECHNICAL SYSTEMS
PRESS PACK

www.genesistechsys.com

OVERVIEW

Genesis Technical Systems is the provider of the ground breaking *DSL Rings*[®] technology that provides high speed internet bandwidth of up to 400 Mb/s over a phone company's existing copper infrastructure at very low cost.

More than capable of delivering streaming high definition TV, *DSL Rings* changes the competitive landscape for voice, video and data telecommunications services by enabling superfast Internet bandwidth to rural and urban customers at a fraction of the cost and deployment time of other solutions.

DSL Rings is deployed in a RING configuration and uses three existing telecom standards, RPR, VDSL2 and G.Bond. What is important to note about *DSL Rings* is that it is a true last mile access solution, and does not require a defined technology structure in the backhaul to the network.

There are a number of options to getting to 400 Mb/s; however the "secret sauce" in the Genesis solution is how it can sustain the 400 Mb/s over long distances on existing copper infrastructure. Competing technologies can only sustain 400Mb/s over short distances, or at very expensive install costs.

Evidence is in the Genesis telco customer interest. Genesis has completed entry lab trials with two communications providers, has signed NDA's with two others, and has expressions of interest from ten others. The company does not have a large sales force at this time and customers have found out about our *DSL Rings* solution through trade shows, scientific papers, and articles about the Genesis solution.

SENIOR MANAGEMENT

GARRY KELMAN

Genesis CEO

- Former CEO & Founder of Kelman Technologies Inc.
- Current CEO of Edge Technologies
- Former Director of Result Energy (TSX-V: RTE)



STEPHEN COOKE

Genesis Founder, President and CTO

Inventor of the Genesis DSL Rings technology, Stephen has over 21 years telecommunications experiences and a history of innovation in technology and business.

Stephen was the system design authority for Nortel's OC48 Transport Node product line with >\$1B USD in revenues at the time and was Account Manager on Nortel's \$1B MCI Account team. Stephen was also former VP Telecom Services at NTS, the largest independent test organization in the US.



QUOTES

“Success for Genesis is about enabling low cost very high speed internet access for everyone, whether they live in an inner city or the most rural of communities.”

Garry Kelman, CEO Genesis Technical Systems

“Users are expecting more and more from their telecommunications service providers, such as HD Video on Demand which requires a bandwidth of at least 15 Mb/s. For example, downloading Avatar in HD would take 22 hours over a speed of 4.8 Mb/s (the current average for Canada), compared to approximately 12 minutes with a DSL Rings® enabled 400 Mb/s connection.”

Stephen Cooke, Founder Genesis Technical Systems and DSL Rings®

“Passion, patience and persistence are key to successfully setting and achieving the right goals in the ever-changing telecommunications industry.”

Stephen Cooke, Founder Genesis Technical Systems and DSL Rings®

“Not-with-standing Government and telecoms budget constraints these days – with DSL Rings® telecommunications providers can make much needed ultra-high bandwidth accessible to the masses, inexpensively and in an environmentally friendly way in both rural and urban areas.”

Stephen Cooke, Founder Genesis Technical Systems and DSL Rings®

FAQs

What speed can I expect to get from an installation of *DSL Rings*?

Typically more than twenty times the current DSL speed in your area, or up to 400 Mb/s.

How do *DSL Rings* compare with other technologies that can provide similar bandwidth?

DSL Rings can be installed for approximately 5% of the cost of fibre-to-the-home, the only other technology that can offer bandwidths on this order.

What cabling is required for *DSL Rings* to work?

No new cabling has to be installed. The telco's existing two copper pairs are used. One pair connects to either the pedestal (or Distribution Point) or the neighbour on the right, and the other pair connects to the neighbour on the left. This is all done through the pedestal (or DP – the little box on the street corner).

What are the benefits of *DSL Rings*?

DSL Rings Technology is:

- **Superfast.** 400 Mb/s. More than capable of delivering streaming high definition TV.
- **Affordable.** Genesis modelling demonstrates that the per user cost of deploying *DSL Rings* is between 1% and 5% of the cost of laying a fibre optic infrastructure.
- **All inclusive.** *DSL Rings* is effective in rural and urban areas, offering a technical leadership to the widest possible customer base, in the shortest possible time.
- **Environmentally sound.** *DSL Rings* is a low power solution with no requirement for batteries, or extensive power equipment.
- **Non-disruptive.** *DSL Rings* is implemented without disruption to the existing network. It also avoids the need for trenching, usually required when deploying a fibre optic infrastructure, which causes significant disruption to local housing and business communities.
- **A complete solution.** *DSL Rings* delivers superior performance for voice, video, and data.

How do you know the technology works?

Our equipment has been built and demonstrated at several industry tradeshow and in the test labs of 2 major European incumbent telecom providers. These industry experts have witnessed *DSL Rings* technology working under their conditions.

FAQs

Has your technology been tested or validated by any telecoms service providers?

DSL Rings has been demonstrated to the network engineers of two major European incumbent telecom providers in their test labs. Engineers from both organisations have verified that *DSL Rings* technology works as described.

Why are some telcos going ahead with fibre?

Before *DSL Rings*, there was no economically viable fibre alternative to providing the bandwidth demanded by consumers of telcos. Telcos considering deploying fibre to customer's homes are typically budgeting to spend billions of dollars but will reach less than 40% of their customer base.

How would telcos use *DSL Rings*?

The value proposition of *DSL Rings* relative to competing technologies is extremely compelling. *DSL Rings* unlocks the bandwidth potential of telco's existing copper wire infrastructure and allows them to offer differentiated services at a fraction of the cost of deploying fibre. Telcos have been experiencing a declining customer and revenue base due to their inability to offer affordable high bandwidth differentiated services to their existing urban and rural customers.

Is re-using the existing copper infrastructure a realistic solution?

Yes. Telcos have over a trillion dollars of copper infrastructure that still has substantial physical and usable life remaining. By utilising *DSL Rings* telcos can extend the economic life of their copper for decades.

What are the options for deploying fibre with *DSL Rings*?

If fibre is deployed to the Cabinet, which is still much cheaper than deploying it all the way to the home, the Internet traffic still needs to go over the telco's copper wires from the cabinet to the house. *DSL Rings* can be deployed in conjunction with fibre-to-the-cabinet to achieve up to 400 Mb/s to the telco customer.

Why was this concept not thought of before?

There is no specific reason that this technology hasn't been previously considered. Genesis has used three existing technologies and combined them in a new and innovative way. The way that telecom service providers connect to your house hasn't changed in over 100 years and rings have been used in telecom networks to backhaul traffic; but until *DSL Rings*, service providers have not been able to extend rings down to their customers' premises.

FACTS

Canada ranks ninth in a global analysis of Internet connectivity speed by country. The average measured internet connection speed for Canada is 4.8 Mb/s compared to 12 Mb/s for the global leader South Korea.

Source: Akamai State of the Internet Report, Jul 2010

Almost four in five people around the world believe that Internet access is a human right.

Source: BBC Report March 2010

There are over 1.2 billion copper telephone lines in the world.

Source: CIA 2005

MEDIA CONTACTS

Doug McArthur

doug.mcarthur@genesistechnsys.com

Tel: +1-403-616-2209

Clair MacKenzie

Clair.mackenzie@genesistechnsys.com

Tel: +44 7823 332410

Genesis Technical Systems (Canada)

Suite 1720

510 5th St SW

Calgary, AB T2P 3SW

Canada

Tel: +1 403 266-5895

Tel: +1 877 808-8488

Genesis Technical Systems (UK)

3 Coventry Innovation Village

Coventry University Technology Park

Cheetah Road

Coventry

CV1 2TL

UK

