What is meant by Universal Jointing?

Universal Jointing is a method of connecting all types of submarine optical telecommunication cables with a common set of construction equipment & methods

The benefits of the Universal Joint (UJ) for the repair and installation of subsea fibre optic cable systems are widely acknowledged within the Telecommunication Industry. Since its first installation in 1990 the technology has proven its reliability in-service and provides an efficient and cost effective method of connecting most types of submarine optical telecommunication cables, using a common set of equipment and standardised piece parts

**BENEFITS - SYSTEM OWNER**

*Low cost capital expenditure* in jointing tools, piece-parts and services - only one technology, eliminating the added cost of acquiring all proprietary technologies relating to the system cables

*Lowest cost operating expense* - Common standard for training and re-qualification

*More options for cable sparing* - Inter cable connectivity means that for multi-supplier systems, competitive purchase and sharing of spare cable are possible

*Wider choice of service providers:* Competitive procurement of jointing piece-parts, training and maintenance services from independent vendors.

*Time proven:* UJ is a technology based on sharing industry expertise which has offered outstanding performance for over twenty years

**BENEFITS - MAINTENANCE PROVIDER**

*Lowest cost of capex/opex* with only one technology to support. The added cost of acquiring all proprietary technologies relating to the cable in the system is eliminated, greatly reducing the variety of kits to be kept in inventory and the amount of shipboard equipment and operator training required

*Ability to operate on most cable systems* maximises ship flexibility

**BENEFITS - TO THE INDUSTRY**

*Optimised cost* of system maintenance

*Common philosophy* and standards

**UJC** members:

www.ujconsortium.com
Universal Joint Pedigree

For **TAT-8** (commissioned **1988**) the system suppliers, *Cable de Lyon, AT&T*, and *STC*, cooperated to integrate their own proprietary Interconnection Devices ~ *integrating three separate designs was costly and troublesome*

As **TAT-9** progressed a single joint concept was developed by *AT&T* (now *TE Subcom*) and *BT* (now *GMSL*) to simplify future maintenance ~ *this became the UJ technology.*

In **1990** *Câble de Lyon* (now *ASN*) joined the consortium.

In **1992**, after the success of UJ in the Atlantic, *KDD* (now *KCS*) joined the agreement as it was introduced into the Pacific.

In **1996** a new product, the Universal Quick Joint (UQJ) and agreement was developed for the short-haul non-repeatered market.

In **2000** The predecessor organisations of *TE SubCom, Kokusai Cable Ship (KCS), Alcatel-Lucent Submarine Networks (ASN) & Global Marine Systems (GMSL)* combined agreements for the UJ and the UQJ to form a single agreement under the

**Universal Jointing Consortium (UJC)**

*recent cable systems where UJ has been used as the maintenance solution include:* *APCN2, Flag, SMW3&4, Unity, EASSy, EIG, WACS* …

**UJC ruling principles**

**Advance** the state of the submarine cable jointing arts, through sharing of the expertise for the mutual benefit of the submarine cable industry

**Optimize** customer return on investment in the technology

**Assure** the uniform introduction of new and tested improvement to this technology in a cost-effective way

**Maintain common** technical, manufacturing and engineering information:

- Quality Plan & Training Standards
- Common technology & Qualification Specifications
- Joint Piece Parts Design & Qualification
- Equipment & Specific Tools Design
- Engineering Data Repository (HDB)
- Comprehensive Joint assembly instructions (UJCM and UQJCM)
- Consistent technology transfer to UJC Member Schools
- Communication through Bulletins & Web Site

**Independent Supply Chain**

As *independent companies*, in commercial competition, the consortium members offer

- Jointing Kits, Equipment and Tooling
- Jointer Training & Certification
- Qualification of cables and cable variants

For contact details and latest product and cable qualification information please visit

**www.ujconsortium.com**