INSTANT IT

We fluidify the data traffic

Instant IT solutions fluidify
the exponentially growing data traffic,
by optimizing the access to the data
onto existing I&C infrastructures.
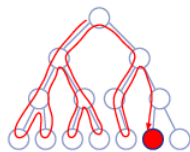
Why still be waiting for data?

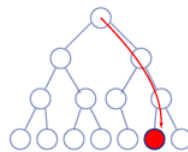**IXDS™**
Instant XML Data Server™
The XML R*-evolution

(R*: Random Access)

Instant XML Data Server™ - Executive Summary

Traditional XML Parsing   ...   or   ...   Instant XML Data Server™ ?

XML Tree Traversal = Sequential Parsing

IXDS™ Instant XML Data Extraction

» XML, although it has become one of the key IT technologies, is still suffering from an intrinsic Performance issue

» Instant IT SA is introducing IXDS™ (Instant XML Data Server™) to solve the XML Performance Syndrome

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XML Sequential Parsing

» Accessing information within an XML Infoset is made by *sequentially parsing the whole XML document*, leading to:

– Potentially huge computation times

– Huge server resource requirements, either RAM or Processing & I/O

Traditional XML Parser

Tree Traversal
= Sequential Parsing

IXDS™ - Instant XML Data Extraction

» Instant IT's unique software technology allows to instantly extract any data from the XML document:

– Independently of the XML Infoset size

– Directly out of the XML file, without loading the whole data into RAM memory, nor sequentially parsing the whole XML file
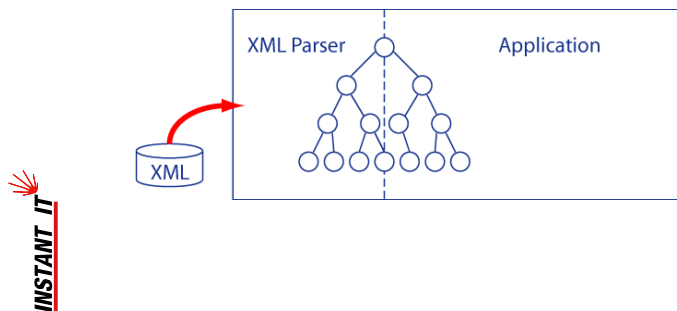
Instant XML Data Server
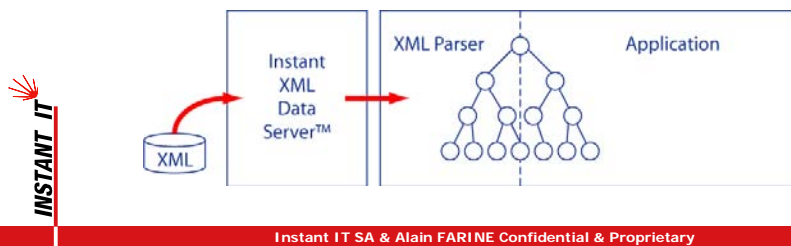
Instant Data Extraction
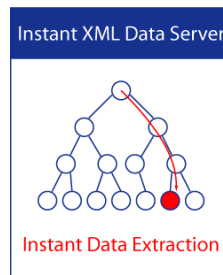
How the Application accesses XML

» The Application Software uses the XML Parser (DOM, SAX, …) for turning the original XML data into a form that can be used by the Application internal data representation:

IXDS™ Liberates the XML Parsers Performance

» By inserting the Instant XML Data Server™ between the XML Storage and the XML Parser, one enables the Application Software to:
  – Continue using strictly the same XML Parser, meaning that the Application doesn't need to be modified
  – Thoroughly continue using the same XML Infoset, without any XML structural modification
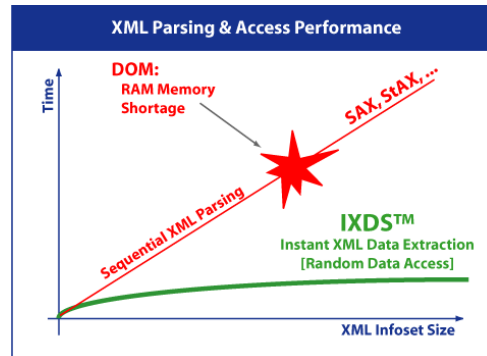 – Gain the Instant XML Data Extraction capacity

An Obvious Performance Advantage: XML Size

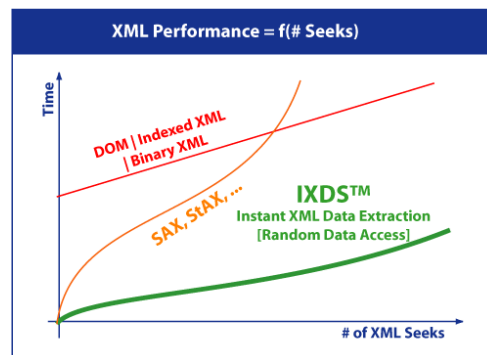» IXDS™ performance behaves in a close to constant way, independently of the XML Infoset size

An Obvious Performance Advantage: # of Seeks

» IXDS™ displays a clear operational advantage over traditional parsers when processing large amounts of XML Seeks:

But in fact, what is IXDS™ ?

» IXDS™ is:
  – A pure software application that is based on Instant IT's unique data extraction & processing software technology
  – A novel way in accessing, extracting and processing massive data and/or heavy request loads
  – A seamless upgrade path for existing XML & IT infrastructures, providing a Performance Quantum Leap without changing the XML Application
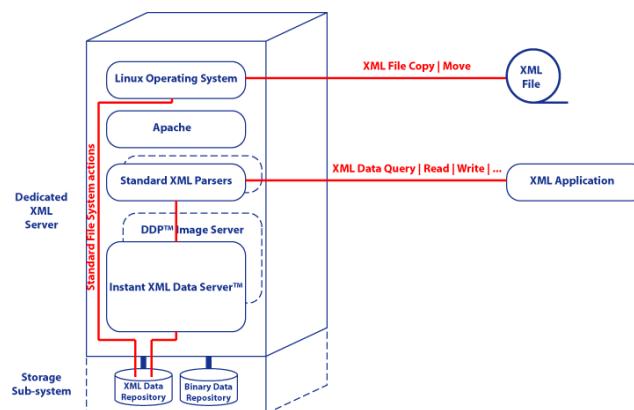
» IXDS™ isn't:
  – Another Proprietary XML format
  – Another Binary XML-like format
  – Another exotic solution that would call into question your existing XML & IT Infrastructure

Instant XML Data Server™ - Implementation

» The Instant XML Data Server™ is a simple software installed on a standard Linux Storage Server

Instant XML Data Server™ - Integration

» IXDS™ seamlessly integrates with:
- The IT Legacy Infrastructure (file, archive,...)
  - XML Files can be copied or moved to/from the IXDS™ storage through standard file system actions, at any time
- The XML Applications
  - Standard XML Parsers (DOM, SAX, StAX)
  - Standard XML Frameworks (XPath, XQuery)
- The WEB Diffusion
  - Complex documents or contents may include binary images or documents, to be dynamically served by the DDP™ optional image server

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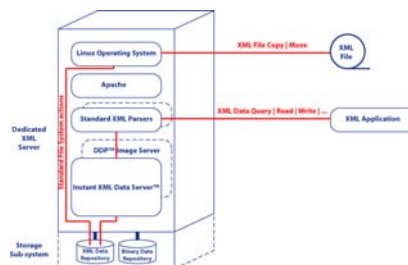
IXDS™ - Unique Selling Proposition

» True Random Access to the XML Infoset with Read & Write capability

» Dramatic XML Parsing & Access Performance Increase

» Lower Hardware Configuration Dependencies

» No Preliminary Indexing Phase, nor Transcoding

» Perfect Complement to Standard XML Parsers: DOM, SAX, StAX, XPath, XQuery

» Parallelization of the XML Sequential Parsing on multi-processors, distributed systems or multi-core CPUs

» Directly pluggable into any XML File & Archive legacy infrastructure, with XML File Copy & Move capability at any time

Instant IT Addresses Large Data Sets Issues

» Instant IT provides a unique Software Technology Framework allowing to address the Performance and I&C Infrastructure issues related to:

– Large & Complex Data Sets
– Access & Extraction of Massive Data
– Numerous Simultaneous Users

» This Software Technology has been constantly developed and improved since the early 90's. Thanks to our unique methodology and know-how, it is still unrivalled in the worldwide IT market.

Avoiding the Brute Force Computing Syndrome

» Instant IT's Software Technology solves numerous I&C problems, avoiding the traditional and mostly inefficient *Brute Force Computing Syndrome*, by:

– Instantly extracting any data from the storage, like a pipette would do, independently of the original data size and complexity
– On-the-fly processing the requested extract through extensive macro-pipelining and macro-parallelism
– Diffusing the *result of the data* in pipelined mode to the requesting client, in the exact size, format and form

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