University 2012
Achieve Your Potential

U2 as a Strategic Advantage

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Rocket | U2™

Abstract

This session will describe why U2 provides a strategic advantage for companies to achieve success. We will discuss the advantages of the U2 MultiValue data model and share the successes our customers have achieved with this technology. Come to this session to understand and be able to explain how U2 technology makes it possible for companies to speed development, react quickly to changing business needs and drive business value.

Logistics

Please set your cell phone to "vibrate" as a courtesy to others.
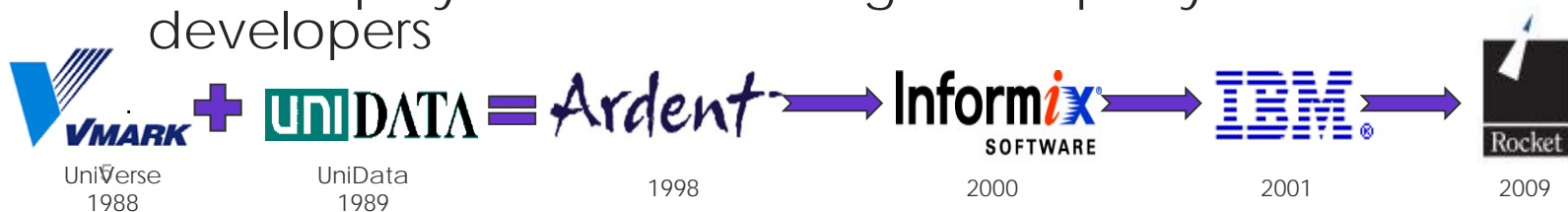
Schedule
1 hour

Agenda

- Purpose
- What is U2?
- Who uses U2?
- What is the strategic advantage of U2

Rocket U2 = UniVerse + UniData

- MultiValue (or "extended relational") database servers
  - Flexible, natural mapping of real-world data
  - Multi-dimensional with variable length fields and files
  - Provides a **competitive advantage** because of
    - speed of development
    - zero to no administration
    - ease of customization
  - Established business built up over 20+ years
  - Products continually enhanced with new features
  - Used by tens of thousands of organizations around the world
  - Most deployments are through third-party solution developers

VMARK + **uniDATA** = *Ardent* → **Informix** SOFTWARE → **IBM** → **Rocket**

UniVerse 1988   UniData 1989   1998   2000   2001   2009

Who Uses Rocket U2?

- Rocket U2 is installed at more than **65,000 sites** around the world. Nearly **five million people** use the products every day, touching the lives of **billions** of people around the world:
  - 40% of US institutions of higher education
  - 80% of Mexico's emergency response systems
  - 70% of North America's largest independent insurance agencies
  - 80% of automobile dealerships in North America
  - 55% of Fortune 100 companies
  - 50% of the top 400 energy-products companies
  - 10% of all furniture sales in the United States
  - 100% of all airline luggage checked in Australia

U2 Partners Provide Industry Solutions

- Manufacturing / ERP
- Government
- Distribution
- Leasing
- Retail
- Higher Education

- Insurance & Benefits
- Medical
- Finance
- Oil & Gas
- Publishing
- Collections
- Membership

Technical Advantages and Differentiators

- Business-oriented database

- Nested relational technology

- Dynamic, variable-length data structures

- Self-tuning tables, hashed index access

- Server-centric, single process per user

- Record-oriented direct I/O and set-oriented SQL I/O

- Loosely coupled data dictionary

- Flexible development options

- RESULTS
  - Rapid application development
  - Solid performance
  - Easy administration

U2 Value Proposition

High Performance, Extended RDBMS

- Faster and fewer I/O requests
- Few tables to administer; self-tuning
- Supports native access for optimal performance

Wide Breadth of Industry Solutions through U2 Business Partners

- Best-of-breed industry solutions
- Over 230 Business Partners worldwide
- Ease of solution customization

Application Development Freedom

- Integration with key development platforms such as .NET and J2EE
- Support for popular Integrated Development Environments including WSAD, Eclipse and Visual Studio.NET
- Support popular languages including Java, Visual Basic, C/C++ , XML and .NET

Investment Protection

- Open standards compliance
- Multi-platform support: Unix, Linux, Windows
- Choice of tools
- Low overhead, less hardware required
- Guaranteed backwards compatibility
- Award winning 24 x 7 support (96% customer satisfaction rate[1])

Simple to Develop, Deploy and Manage

- Intuitive, flexible, fast application development
- Easily scalable to support business requirements
- Simple installation and small footprint
- Variable length fields, files
- Simple installation and small footprint
- Low to no DBA requirement

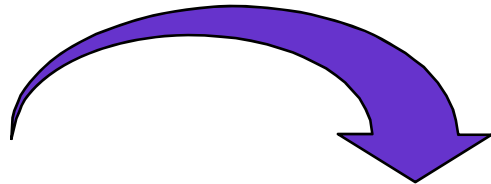(1) Based on U2 customer satisfaction surveys.

U2 is Embedded Technology
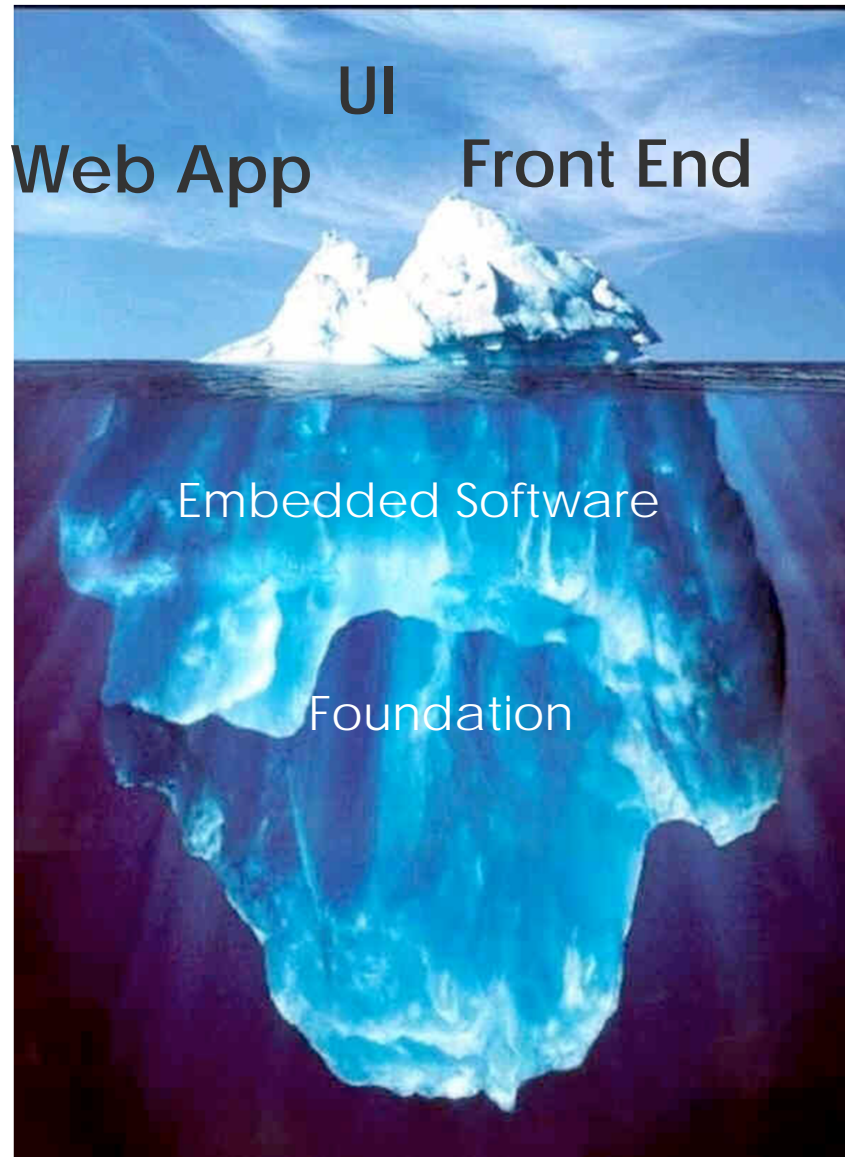
The Evolution of Databases
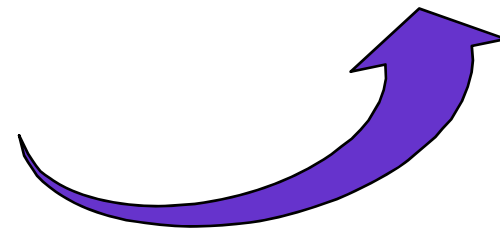
E.F. Codd

1NF White Paper

1st RDBMS Design

DB2, Oracle, Ingres, Informix, Sybase etc.

NF2 White Paper Advanced RDBMS Design

UniVerse RDBMS

UniData RDBMS
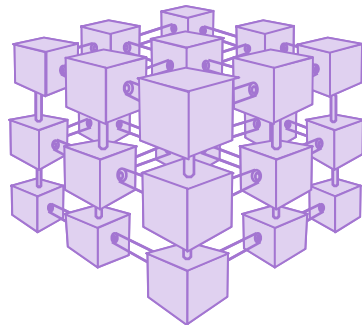
What Is MultiValue?

- Also known as
  - Extended Relational
  - Nested Relational

- Ability to store **multiple nested tables** while supporting SQL access that provides mathematically correct results

- Support for multivalued and multi-subvalued fields and associations of fields

Relational Database Model

- **Example:** Store your contact information
  - Unique ID for each company
  - Company name
  - Contact names and all their phone numbers

- Tables required for RDBMS

company_contact

1111	c11
1111	c12
1112	c13

contact_phone

c11	p1
c11	p2
c12	p³
	p
	p

company

1111	Amoco
1112	GTE
1113	HMO
1114	Kraft

contact

c11	Jim Smith
c12	Bob Brown
c13	Joe Smith
c14	Peggy Smith
c15	Bill Jones

phone_number

p1	713-555-1212
p2	713-479-4444
p3	713-267-1471
p4	214-453-1444
p5	303-766-9999
p6	708-499-7666

13
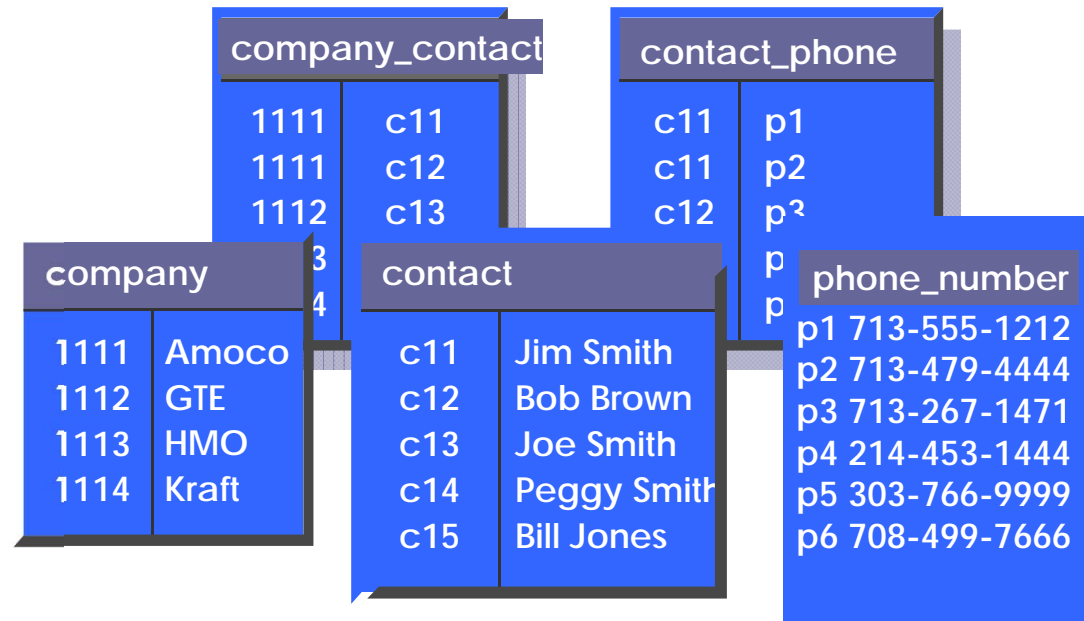
Contact Records

| Contacts			
1111	Amoco	Jim Smith	713-555-1212
			713-479-4444
		Bob Brown	713-267-1471
1112	GTE	Joe Smith	214-453-1444
1113	HMO	Peggy Smith	303-766-9999
1114	Kraft	Bill Jones	708-499-7666

company_contact

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p6	708-499-7666

- **MultiValue**
  - Smaller data sets
  - Much simpler
  - More intuitive
  - Faster

- **Relational**
  - More tables mean:
    - more disk I/O
    - locking conflicts
  - More data means:
    - more memory
  - More difficult to administer
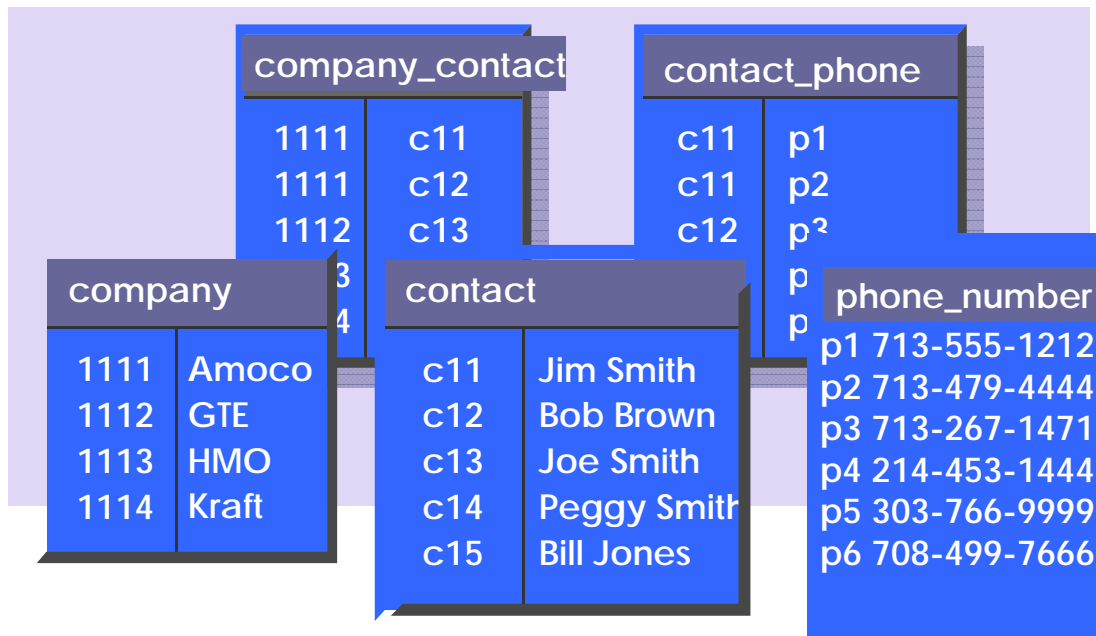
Tightly Coupled Data Access and Development

- High-level procedural language

- Natural query language

- Optimized for MultiValue data processing

- Extreme flexibility

- Dynamic typing

- Compile to portable pcode

- Virtual Run machine executes business logic

- Virtual Attributes
  - *Simple computations, functions and complicated business logic*
  - Indexing capabilities supported

Business Value

Administration

- Intuitive data model results in
  - Fewer, smaller database tables
  - Efficient data retrieval

- Dynamic files eliminate need for table reorganization

"There is simply <u>no need for a database administrator</u> in a UniVerse shop. That's a <u>savings</u> of at least $100,000 per year in DBA costs, right off the bat."

- Peter Anderson, VP and Chief Technology Officer, 1mageSoftware, Inc.

Scalability

- **20,000 users**

- **Processed 627,816 transactions per hour**

- **6,334 web requests per second on 10 web servers**

- **Average of only 50.6 percent CPU utilization**

- **100 GB of data**
  - 821,000 client records
  - 4,861,923 policy records
  - associated policy and accounting detail data

System Configuration

Number of servers One
Manufacturer IBM
Model RS6000 Power 570 LPAR
Operating system AIX 6.1 TL2 SP2 64-bit
Processor 16-core 4.7 GHz Power6
RAM 128GB RAM (~124GB configured)
Storage Two RAID 10 arrays with a 4 GB cache, 42 physical drives
and 2x2 GB Fiber
Software UniVerse 10.1.22

Vertafore Technical White Paper
SAGITTA SCALABILITY
5,000 TO 20,000 CONCURRENT USERS OF SAGITTA

Development

- **Unique data model** allows for faster, more intuitive database design

- **Dynamic schema** allow easy modification or customization of solution to meet rapidly changing or unique business needs

- **Integrated development environment,** tools and interfaces allow rapid development of robust business solutions

"We estimate that UniData enables us to bring new services to market two or three times faster than would be possible with a different database, so it gives us a major competitive advantage."

- Justin Morshead, CEO, AdPrecision

Business Asset

- **External consultants review**

  This is a business asset to be nurtured and extended

- **Experience**

  This is a true "Natural" database, being totally flexible with our data design, and our ability to change efficiently and effectively to meet the demanding requirements of businesses and organizations

Barnsley Metropolitan Borough Council Home Care Service (BMBCHCS) uses inTOUCH, a mobile solution developed by CACI - and powered by Rocket U2 - to give more than 280 frontline home caregivers the tools they need to provide the best possible services to local residents.

BARNSLEY
Metropolitan Borough Council

The Barnsley Metropolitan Borough Council is the local government authority in South Yorkshire, and provides a broad range of services, including home care to allow elderly, ill and disabled people to live as independently as possible in their own homes. The council needed a way to communicate with hundreds of care providers and allow information to be seamlessly uploaded and downloaded to ensure the best possible level of service.

Situation

Barnsley Metropolitan Borough Council Home Care Service (BMBCHCS) and CACI first started working together in autumn 2004 following the successful implementation of CACI's OfficeBase electronic rostering and scheduling solution to support the service's 280 home carers. All of the records and information necessary to assist these carers can now be accessed rapidly and efficiently due to the CACI solution, which is built upon the Rocket UniData database.

Susie Siegesmund, VP and General Manager for Rocket U2, says that, "We are proud to be a key part of the CACI solution, which has dramatically improved healthcare and wellness in Yorkshire. CACI builds world-class solutions on UniData and has an excellent track record of helping organisations of all kinds improve the efficiency and effectiveness of their operations."

Rocket | **U2** ™
Powering Business Solutions

Key benefits:

- Home carers access a "real-time" roster detailing each visit, improving care

- Safety for home-care workers is easier to monitor

- Reduction of administrative costs

- Elimination of paper-based processes, including rosters and time sheets

Dacono

Dacono relies on Rocket Software's U2 DataVu to help retail banking institutions manage their regulatory burden and deliver effective business

Dacono provides a strategic planning, compliance, forecasting and financial reporting system to support retail banking institutions to manage their regulatory burdens and to deliver effective business strategy. According to CEO David Jordan, "The nature of the business we deal with is complex and cost-focused, and for us to be successful we needed a solution that was quick to implement, easy to maintain and easy to use. Rocket Software's U2 DataVu met those criteria, enabling us to implement dashboards within weeks of implementing the software. More than 21 years ago Dacono selected Rocket Software's UniVerse database for its capabilities that enabled us to develop a complex application that would have been difficult to do in other environments. Now U2 DataVu has allowed us to add to those features a visual dashboard module that can access the complex data structures we have. U2 DataVu gives our application the finishing touches to make our product a market leader."

Dacono
Sydney, Australia
Dacono helps financial institutions to keep on top of the growing complexity of compliance, governance, risk avoidance and strategic planning. The company implemented Rocket Software's U2 DataVu, the business intelligence tool

Hume Building Society

Hume Building Society Uses Ultradata's New Fraud Interceptor Module for Ultracs, Built on the Rocket Software U2 Platform, to Improve Fraud Detection and Increase Security for the Retail Banking Organization and its Members

Hume Building Society (Hume) is a mutual savings and loan association that serves the residents of Australia's North East Victoria and Southern New South Wales. Established in 1955, Hume has 140 employees and 53,000 members across 18 branches, and has assets of over $700 million. The organization provides a full suite of retail banking services, including savings, loans and investment products. Hume relies heavily on electronic banking, distributing services through Internet, phone and its ATM network.

protect against fraud across service delivery channels.

Like many financial services institutions today, Hume has a widely distributed member base and increasingly relies on electronic delivery channels to serve its customers. Because criminals are always finding new ways to perpetrate fraud, Hume's management continually seeks better solutions to protect the institution's financial health and reputation.

As a long-time user of Ultradata's retail banking solution, Ultracs, Hume relies on Rocket U2-based Ultracs to run all of the various service delivery channels that customers expect from a modern financial institution. These include multiple payment channels, internet banking, mobile banking, ATM and credit card functions as well as over-the-counter processing. Fraud can be perpetrated through any one of these channels, and may occur across many of them.

Hume Building Society Australia

Hume Building Society experiences increased security and reduced losses due to fraud, as well as a stable system with close to 100% uptime. Through its ability to implement multiple uses of data with UltraData's module built upon the Rocket U2 platform, Hume is able broaden management's decision-making capabilities.

Summary Slide

- U2 provides unique technical advantages

- U2 provides unique business advantages

Additional Resources

- Web: http://www.rocketsoftware.com
  - Data Sheets
  - Success Stories
  - Documentation
  - White papers
  - Webinars

- U2 DevZone http://www.u2devzone.com
  - Videos
  - Articles
  - Tutorials

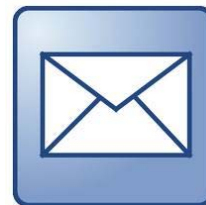- U2NewsFlash

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  - Paper

- Title: U2 as a Strategic Advantage

- Presenter: Jackie Burhans

- Completed event evaluations get you
  - Flash drive with presentations, datasheets and more

Thank you!

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