

IBM Informix 12.1: Simply Powerful

Alexander Körner

Alexander.Koerner@de.ibm.com

Andreas Weininger

Andreas.Weininger@de.ibm.com

THINK
BIG
ACT SMART



Informix 12.1: *Simply Powerful*

Agenda

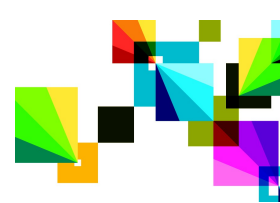
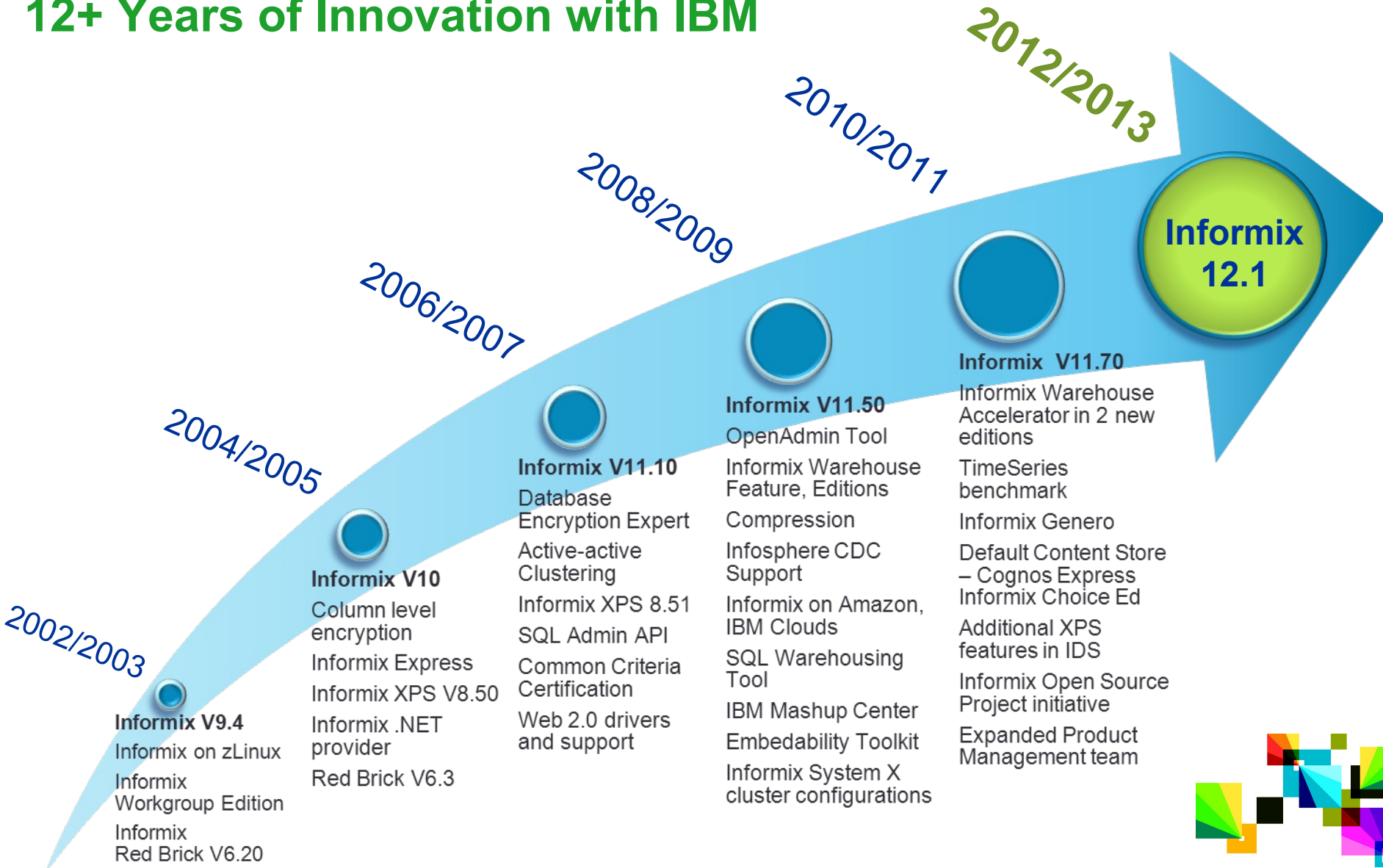
- **Release Overview and Highlights**
- Informix Data Warehousing & BLINK Technology
- Cloud / Flexible Grid
- Sensor Data Management
- Embeddability / Compression
- Ease of Use / Mobile DB
- Informix Editions
- Live Demo! 😊
- Additional Information

“The real strength of IBM Informix 12.1 is in its ability to maximize the computing power of your hardware. This makes the DBA really confident and secure, even when loads reach critical levels – all while remaining extremely simple to administer.”

*- Eric Vercelletto,
Data Management Architect,
BEGOODEN-IT CONSULTING*

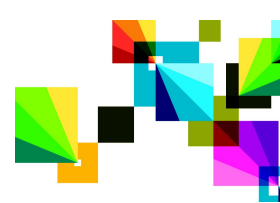
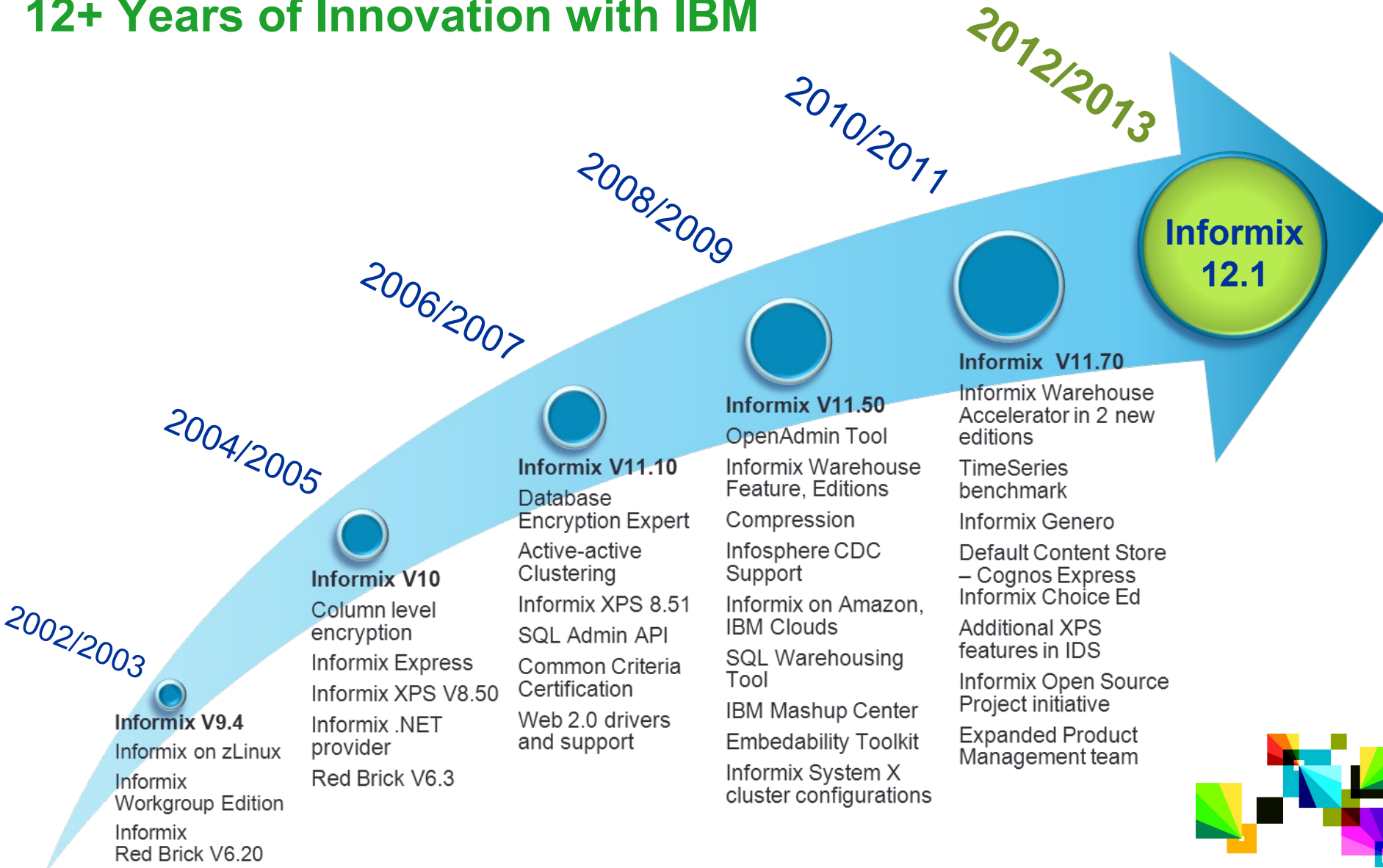


12+ Years of Innovation with IBM



IBM Information Management Forum, 15. bis 16. April 2013, Berlin

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New Enhancements Strengthen Informix Key Differentiators



Warehouse

- Operational Analytics & IWA (BLU query acceleration)



CLOUD

- Replication and Cluster technology, Hypervisor



Sensor data management

- Big Data and adoption of TimeSeries



Autonomics / Embed

- Embeddability, Compression



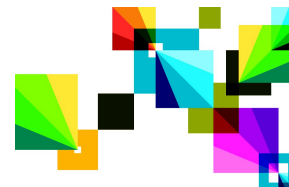
Ease of Use and Productivity

- Graphical Administration, Mobile OAT, Genero

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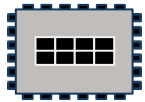
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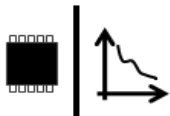


Informix Warehouse Accelerator

IWA HW & SW Breakthrough Technology Innovations



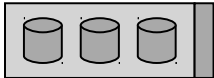
- Multi-Core Parallelism & Intel 64 SIMD tech.



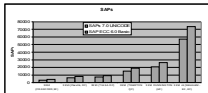
- Massive Parallel Scaling for Loads & Queries



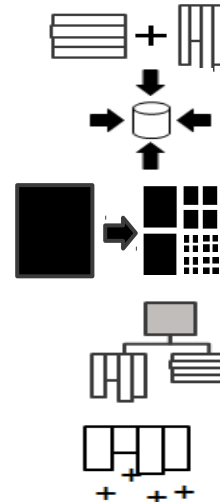
- In-Memory storage & query



- Fast restart



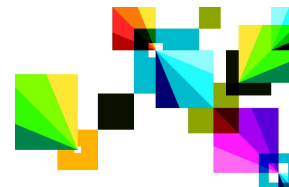
- Extreme performance (10x up to 200x faster complex queries) using Low cost commodity HW, transparent integration with Informix ORDBMS



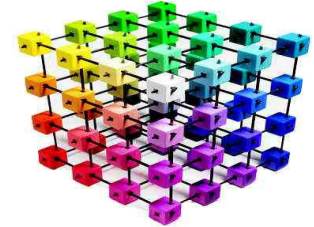
- Row and Column storage
- Compression & query processing on compressed data
- Intelligent Partitioning
- No Aggregate Tables, No Indexes
- Insert Only on Delta

■ In 12.10, we made IWA even more accessible by providing:

- Automatic incremental load and trickle feed
- Support for smart sensors/meters data (Time Series)
- Additional SQL capabilities for common OLAP queries
- Integrated administration via Open Admin Tool



Informix v12.10 Data Warehousing



▪ IN-MEMORY ANALYTICS

Informix Warehouse Accelerator (IWA)
improvements

▪ Highlights

- Significant SQL enhancement in support of operational analytics on Informix
- Industry standard SQL/OLAP functions
- Significant performance improvement in analytics queries
- Ability to update or refresh partitions in IWA
- Load and run IWA from a Secondary server
- Refresh IWA mart with single command
- Trickle Feed
- Improved Integration with Cognos
- OAT support for IWA

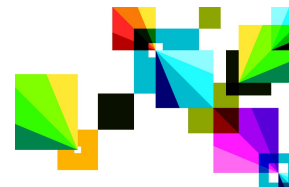


SQL OLAP Functions (Windowed Aggregates)

- ANSI SQL analytics functions
- Helps create running totals, aggregates based on custom partition, window and order **for each aggregate**.
- Simplify the expression of complex but commonly used business questions and are efficient without resorting to subqueries or other calculations
- Avoids need for complex SQL involving multiple derived tables and joins and hence improves query performance

The OLAP functions supported by Informix are as follows:

Ranking	RANK(), DENSE_RANK(), DENSERANK(), CUME_DIST(), PERCENT_RANK(), NTILE()
Numbering	ROWNUMBER()
Aggregate	RATIO_TO_REPORT
First/Last	FIRST, LAST



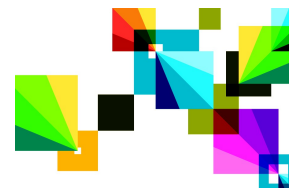
Multiple aggregates with DISTINCTs and DISTINCT with Case Expression

- **Multiple Aggregates with DISTINCTs**

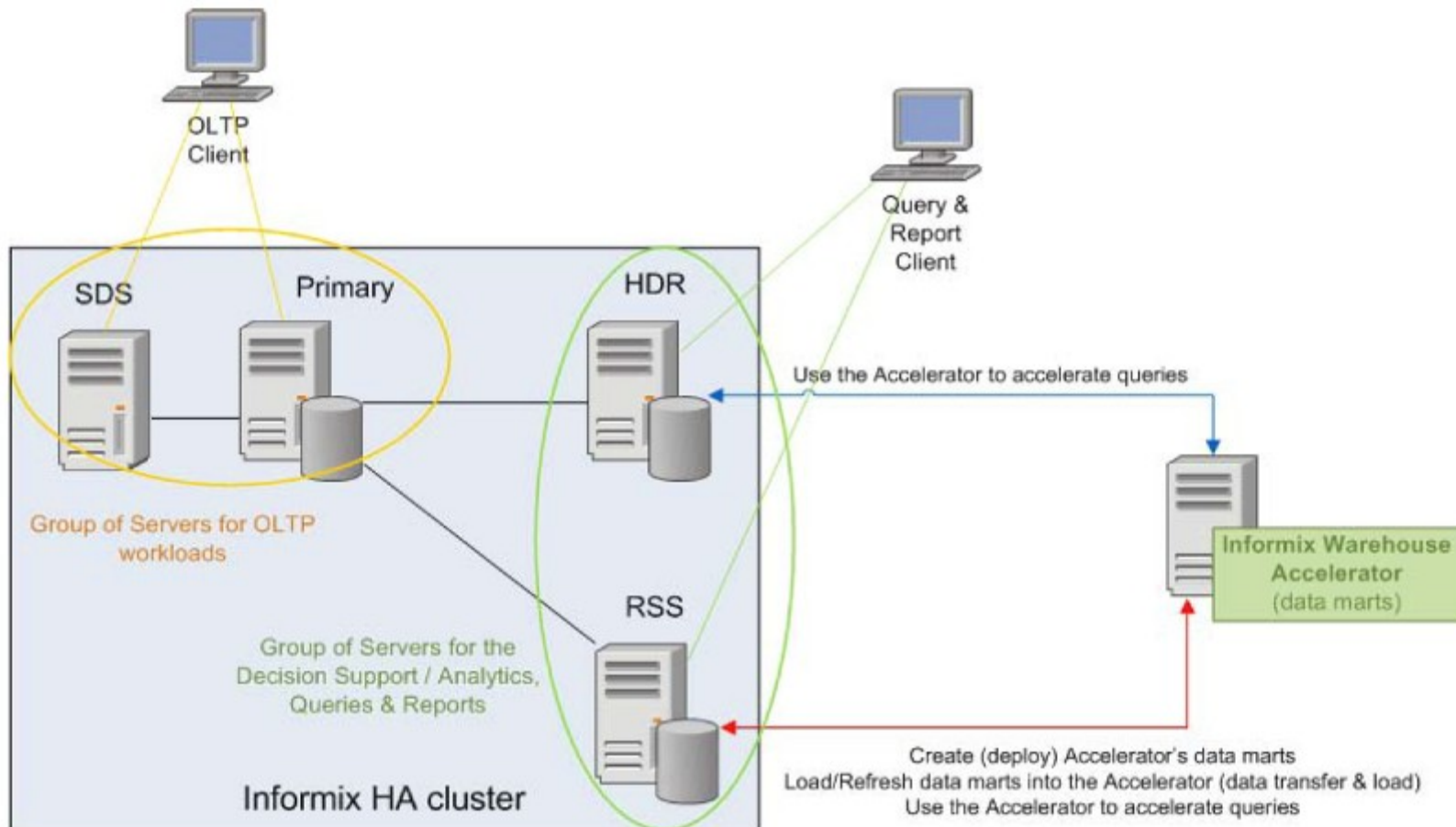
```
SELECT region, sum(DISTINCT cid),  
          avg(DISTINCT salesdt)  
FROM sales_tab  
GROUP BY region  
ORDER BY region;
```

- **Support for DISTINCT with CASE expression**

```
SELECT sum(T983271.set_avgday_sales_rtl_amt) as c2,  
       count(distinct case  
               when T983271.not_set_cnt > 0  
               then T983271.store_sk_id end ) as c3  
FROM features_upc_tab T983271;
```



Using IWA with Secondary Servers

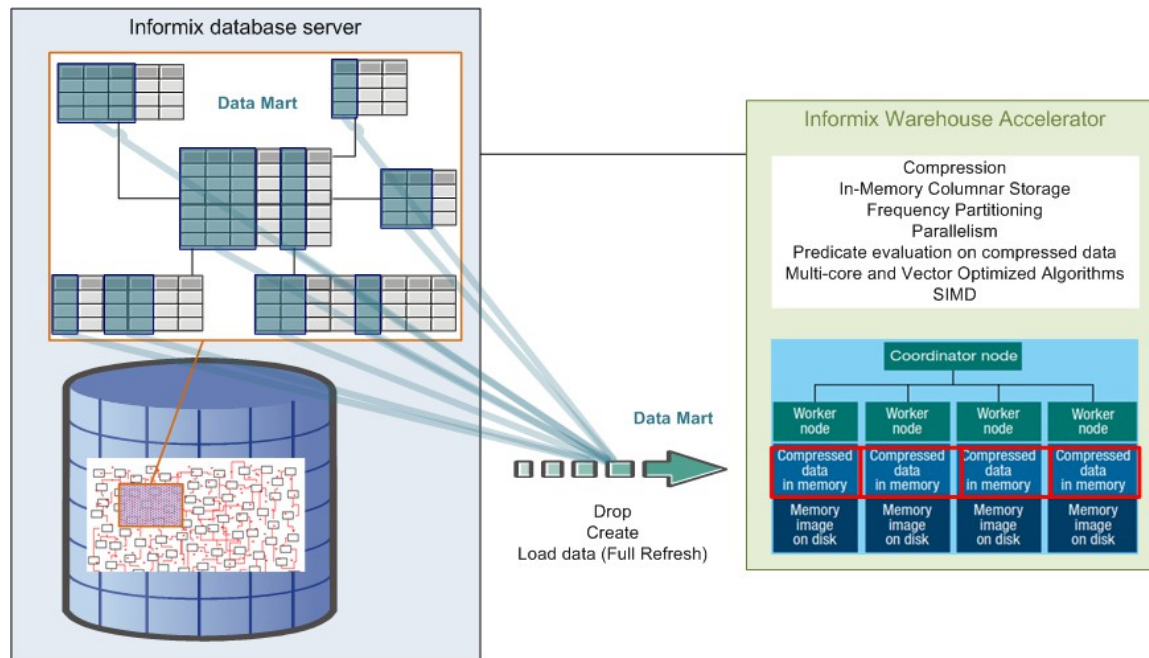


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Enhances Performance for Operational Analytics

- **NEW! Trickle Feed**

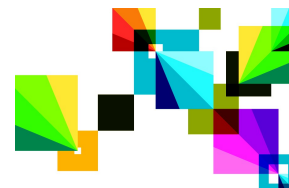
- Automated, continuous updates of changed data from Informix Warehouse into IWA for speed-of-thought analysis of real-time data



- **NEW! Automated Partition Refresh**

- **NEW! Integrated Administration through OAT**

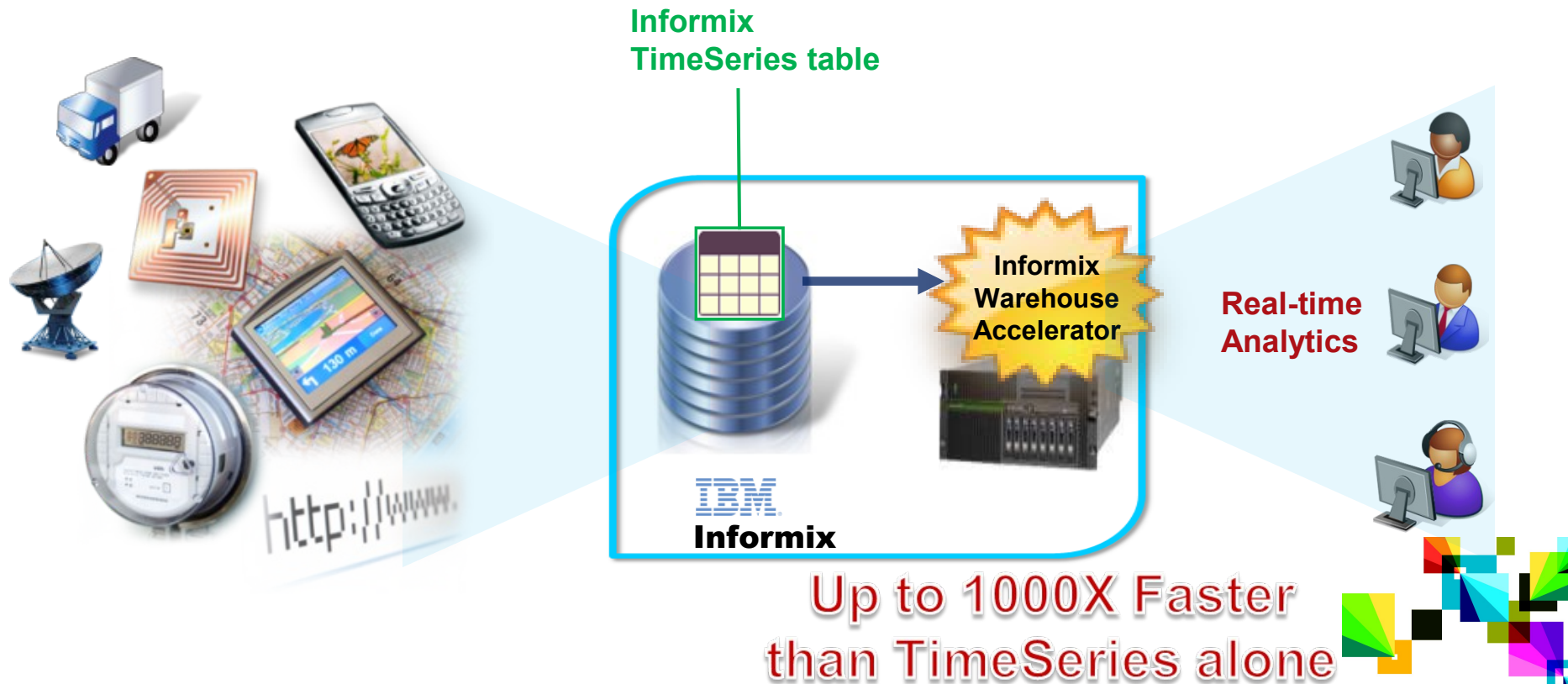
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Informix 12.1: Simply Powerful

Enhances Performance for Operational Analytics

- **NEW!** Informix TimeSeries + Informix Warehouse Accelerator provide real-time analytics of stored sensor data

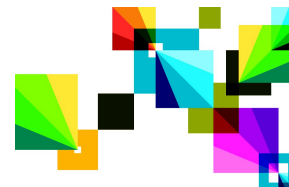


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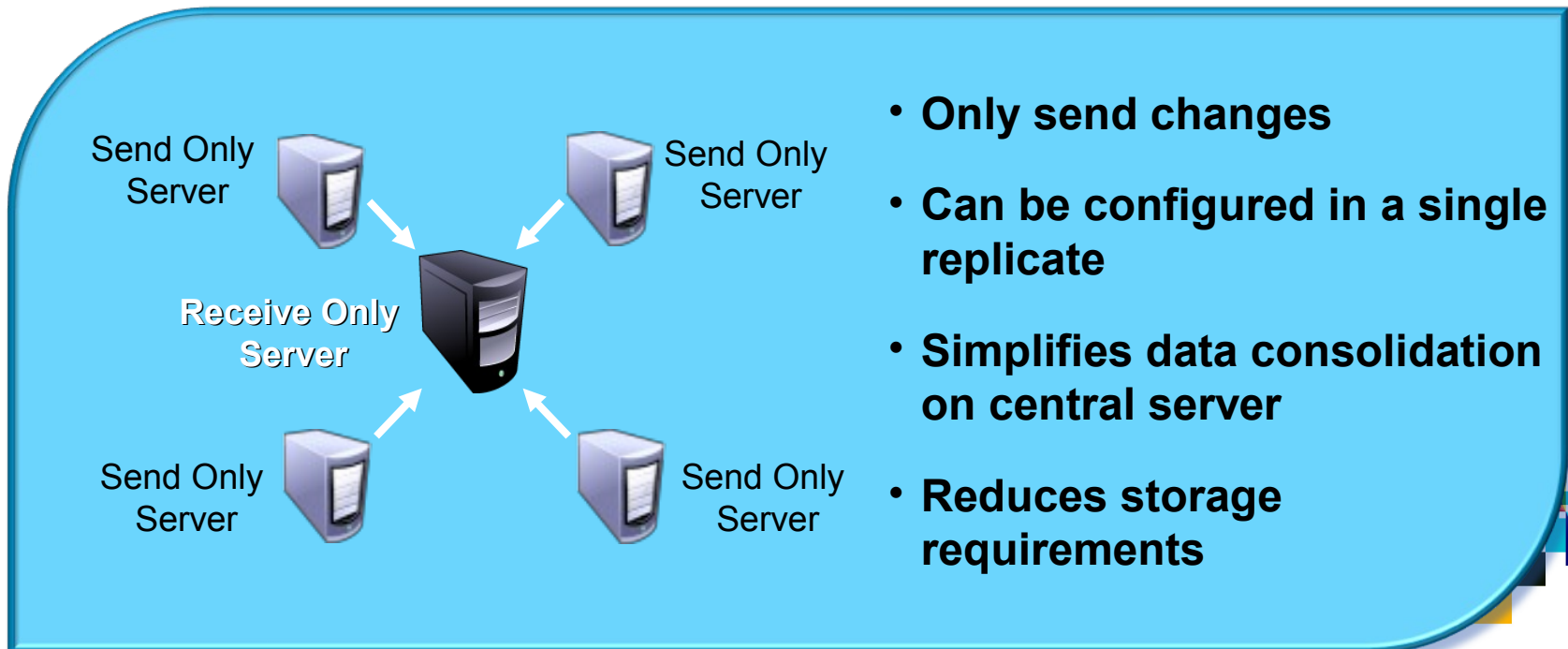
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Reduces cost and risk of distributed deployments; great for private cloud!

- Only database that can be utilized and provisioned on heterogeneous, commodity hardware, different O/S, and different database versions
 - Scale capacity on-demand when and where needed
- “Always-on” data availability
- **NEW!** Ability to configure servers to only send or receive data



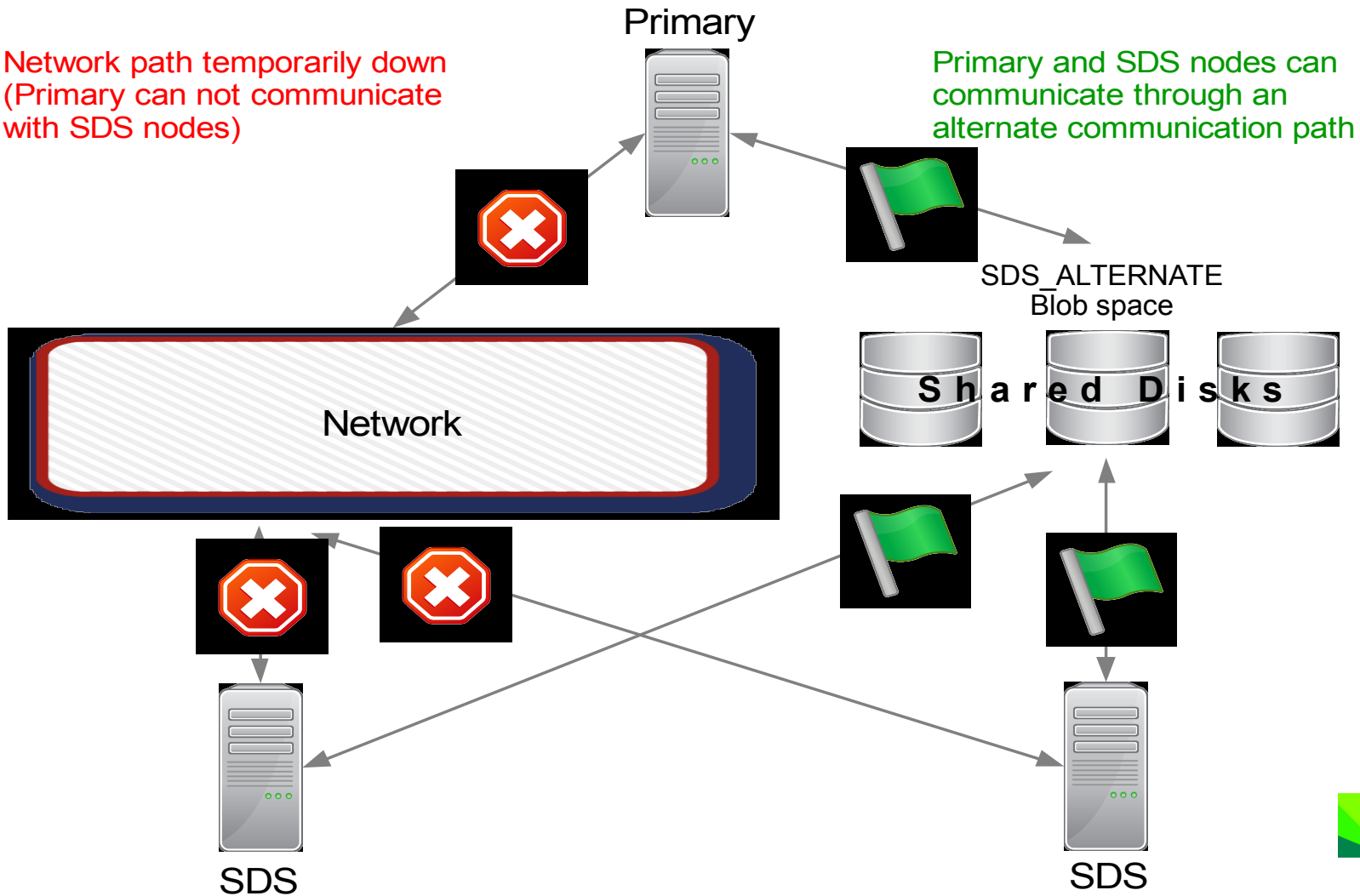
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Informix 12.1: Flexible Grid: Sharded Queries

- A single query may be distributed across a (sub-)set of servers of a heterogeneous (world wide) cluster
- Each node computes subresult which is combined to complete result
- Combination of advantages of distributed and parallel databases

SDS Alternate Communication

Network path temporarily down
(Primary can not communicate
with SDS nodes)



Primary and SDS nodes can
communicate through an
alternate communication path

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Support for light-append operations

- **Enterprise Replication now captures rows that are added through light-append operations, such as the express-load operation of the Informix High-Performance Loader (HPL)**
- **Initial synchronization feature allows you to easily bring a new table up-to-date with replication**
- **No need to suspend any servers that are replicating data while you add the new replicate and synchronize it**
- **Set up your replication environment to load the datasets:**
 - Choosing any of the load /unload utilities
 - Ensuring the use of same utility to perform load/unload operations
- **Block the replication to use load and unload tools on tables that are already being replicated**
- **Unlogged changes to a table, such as data added by a light append operation are now replicated to other tables**

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Easily propagate external files through a grid

- **11.70 Flexible Grid feature gave you the ability to replicate non-traditional things e.g. DDL, the execution of a command**
- **Question: What about replicating the scripts, UDR libraries, etc. that accompany my application?**
- **Answer: `ifx_grid_copy()`. Allows the transfer of an external file to all nodes within the grid.**
 - For example: programs/binaries, scripts, configuration files
- **Makes it easy to replicate non-database objects in conjunction with with associated DDL changes**



Informix 12.1: Simply Powerful

Brings Key Informix Strengths to IBM PureSystems

- **Built-in expertise** to address complex business and operational tasks automatically
- **Integration by design** to tune data infrastructure for optimal performance and efficiency
- **Simplified experience** for the enterprise ecosystem

NEW!

IBM Informix Hypervisor

Expert at: optimally deploying and running Informix database servers for rapid time-to-value

- **Designed for the private cloud with flexibility and simplicity**
Leverages Informix clustering and Flexible Grid technology
- **Enabled and optimized for PureApplication System**
- **Simplified management with a single console**
- **Delivers both Hypervisor Image and System Pattern**

PureApplication



Application Platform

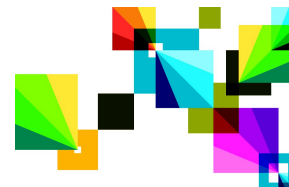
*Delivering Cloud Application
Platform Services*

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Sensor Data Brings New Applications Across Industries

Utilities

- Weather impact analysis on power generation
 - Transmission monitoring
 - Smart grid management

Manufacturing

- Asset location and performance
- Event management and response



Financial Services

- Fraud detection based on biometrics
 - Risk management

Health & Life Sciences

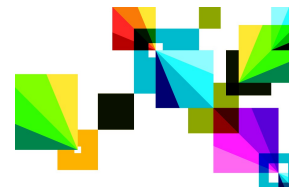
- Remote healthcare monitoring
- Epidemic early warning system
 - ICU monitoring

Military and Law Enforcement

- Real-time surveillance and movement detection
 - Situational awareness
 - Cyber security detection

Logistics & Transportation

- Fleet management and dispatch
- Weather and traffic impact on logistics and fuel consumption



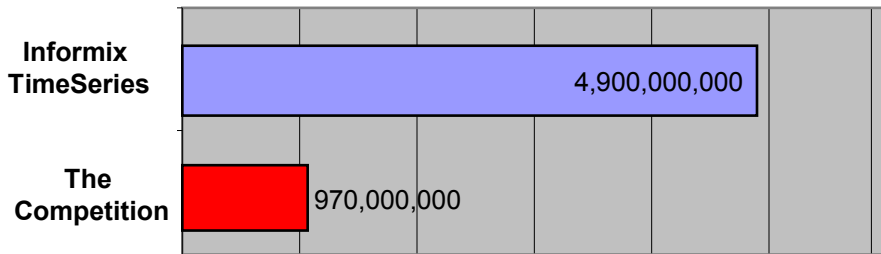
Informix 12.1: Simply Powerful

to solve the Big Data Challenge of Sensor Data

Unprecedented performance and scalability for managing time series data

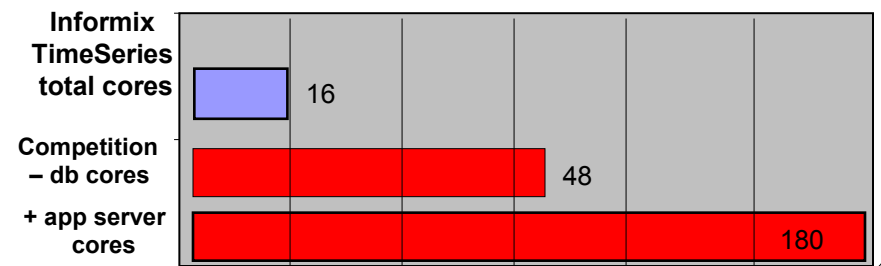
5 times the performance

Daily Readings
(meters * registers * intervals)



< 1/5 the resources

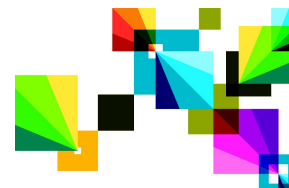
CPU Resources
(cores)



... with significantly simpler management using a single node system

NEW! Able to replicate time series data across multiple servers in a clustered grid

NEW! Support for data retention rules and enhanced storage optimization with ability to automatically remove data outside of defined window of time

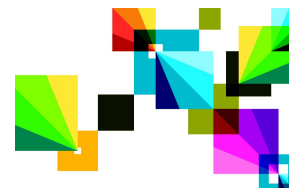


New Features in Informix TimeSeries

- **Performance Improvements**
 - Reduced logging
 - Fast upload APIs
 - Improved concurrency
 - TimeSeries Relational View Improvements
- **Ease of data management**
 - Rolling window containers
- **Ease of Application Development**
 - Write loader program using loader APIs
 - User command line support
- **Ease of data migration**
 - Data Studio Plugin support
- **Replicate TimeSeries Data – ER & HDR support**

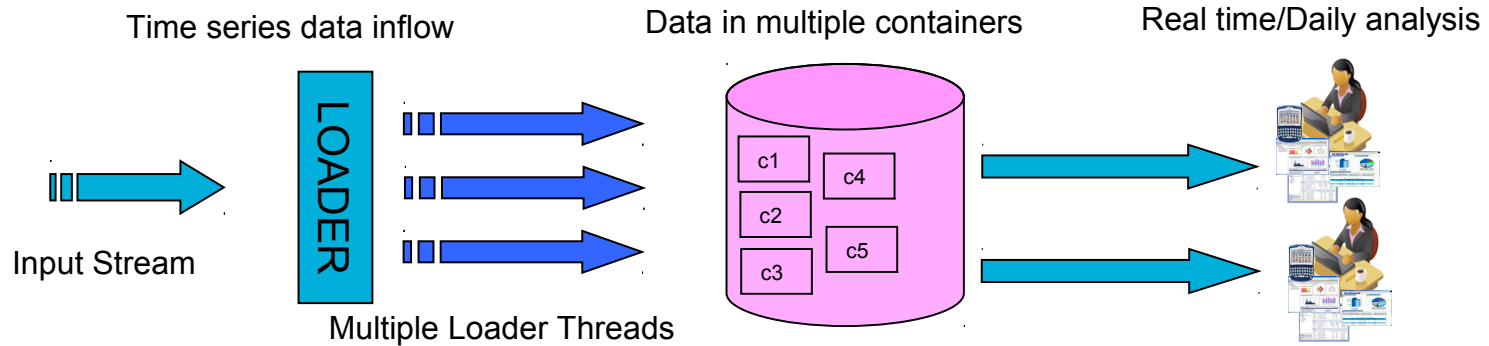


Improvements



Typical Characteristics of Time Series Data

- Data Acquisition with high frequency
 - Millions of records loaded daily
 - Limited small time window to load data
 - Parallel data loading
-
- Near Real time analytics
 - Integrate with relational information
-
- Parallel data load
 - Efficient concurrency control
 - High performance loader
 - Reduce logging
-
- Efficient relational query output



Loading TimeSeries Data from any Database

- Select the connection profile for the source database
 - Defined using [New -> Database Connection Profile](#)
- Specify a query that results in the data to be loaded
- A preview of the record structure that results from the query can be seen by hitting the “Preview” button



Database Record Reader [Close]

Connection profile: customer

Query:

```
select meter_id as id, time as timestamp, value from meter where meter_id=1
```

id	timestamp	value
1	2011-01-01 00:15:00.0	1.2
1	2011-01-01 00:30:00.0	1.1
1	2011-01-01 00:45:00.0	1.3
1	2011-01-01 01:00:00.0	1.4
1	2011-01-01 01:15:00.0	1.234
1	2011-01-01 01:30:00.0	1.34

Reader

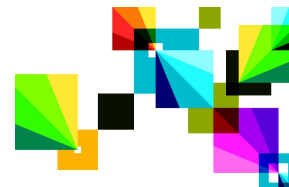


SENSOR DATA
April 2012

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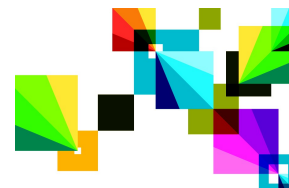
Easy to embed, easy to deploy, easy to rest at night

The Smart Choice for ISVs and OEMs

- Small footprint, silent install
- Up and running in minutes; zero administration
- Automatically sense and respond to changes without intervention
 - *Self Configuring* – **New!** Start server without having to define environment (dynamic onconfig)
 - *Self Healing* – **New!** Table purge by time and/or size
 - *Self Optimizing* – **New!** Automatic compression
- Deliver innovative virtualization and cloud computing solutions

“It’s very, very important to us that what we have is of high quality, what we have has the power behind it to make sure that it has both the longevity and the support that we need. Cisco is taking advantage of the fact that Informix is easily embeddable, and also, the redundant capabilities allow us to use our distributed architecture to scale for our customers.”

- Phil Harris, Senior Director of Engineering,



Informix 12.1: Simply Powerful

Enhances Performance for all Workloads

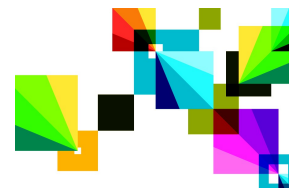
- **NEW!** Index Compression
 - Scans require less I/O
 - More data fits into buffer cache
 - Compression only for leaf index nodes
 - Dictionary-based compression (same as table compression) to favor key only scans found in most OLTP applications

“The new index compression feature of Informix 12.1 delivers a consistent compression rate of 70% which lets us optimize storage and enables almost 15% increased performance.”

*-Vicente Salvadore,
Development & Business Manager,
Deister*



- **NEW!** Blob Compression
 - Individual columns can be compressed
 - Uses the same dictionary-based compression as table and index compression



Informix 12.1: Simply Powerful

Enhances Performance for all Workloads

- **NEW!** Automatic Table Compression
 - Compress data partitions
 - Compress data rows as they are loaded
 - When a load exceeds a threshold, compression process starts
- Automatic Compressing using OpenAdmin Tool (OAT)

Create Table Wizard, Step 3 of 6

Lock Mode

Page

Row

Auto Update Statistics Options

Specify the minimum change threshold:

Use the system setting

Set the threshold %

Table Options

Row version columns (VERCOLS)


Conflict resolution columns for ER (CRCOLS)

Consistency checking columns for ER (REPLCHECK)

Primary key columns for ER (ERKEY)

Selective row-level auditing (AUDST)

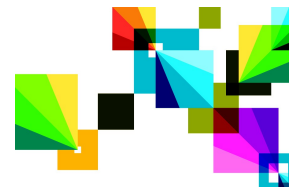
Automatic compression (COMPRESSED)



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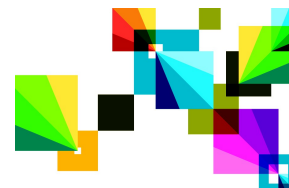
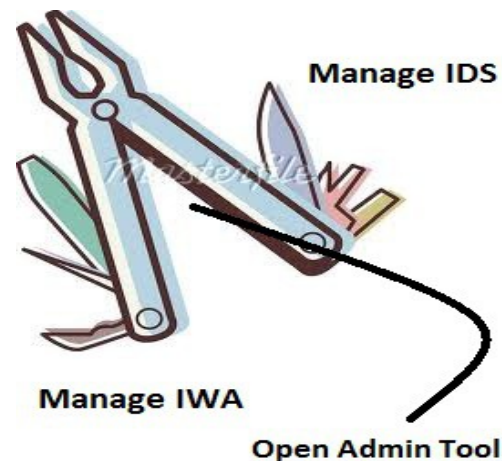
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Multi Purpose Tool - OAT

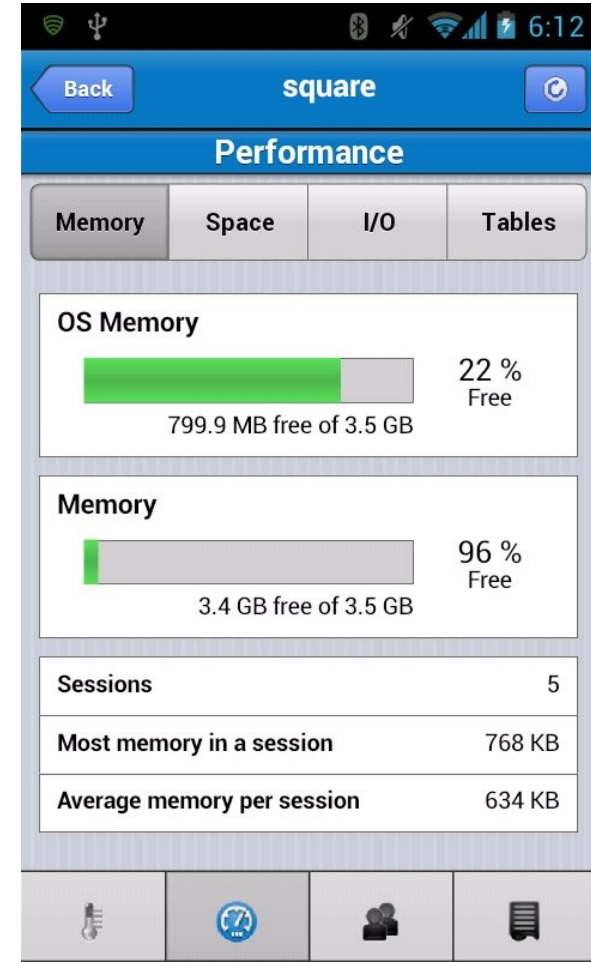
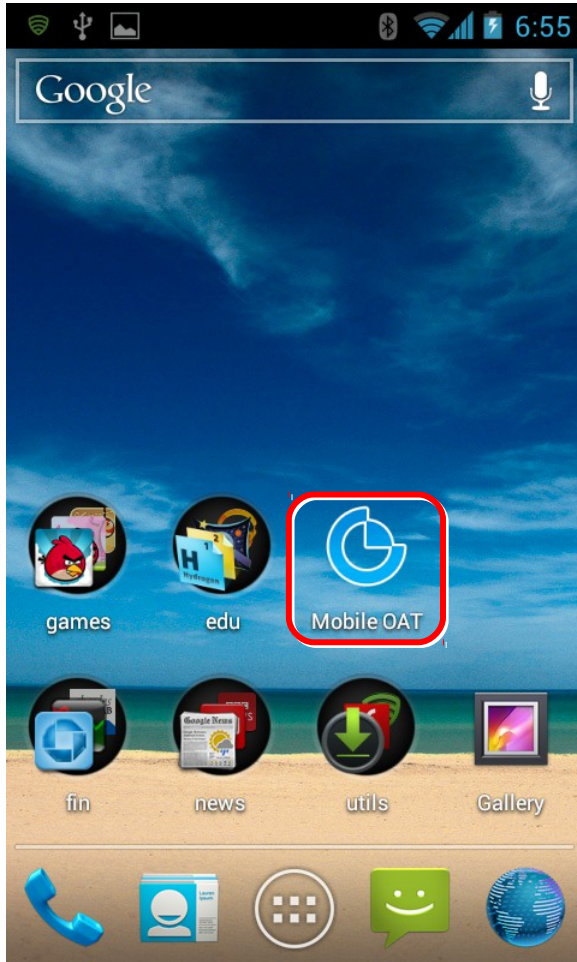
- **Multi Purpose Tool – Open Admin Tool**
 - Earlier OAT customer's just monitored and controlled Informix servers
 - OAT 3.11 customer's can use OAT for handling warehouse operations too
 - Customer's don't have to depend on tools to setup accelerators and create DM
 - Elimination of ondwa and IBM smart analytics studio
 - Customer's need not use workload analysis to create data mart definitions.
 - No time consuming/cumbersome process to be followed other than using OAT



Informix 12.1: Simply Powerful

Easy to go mobile

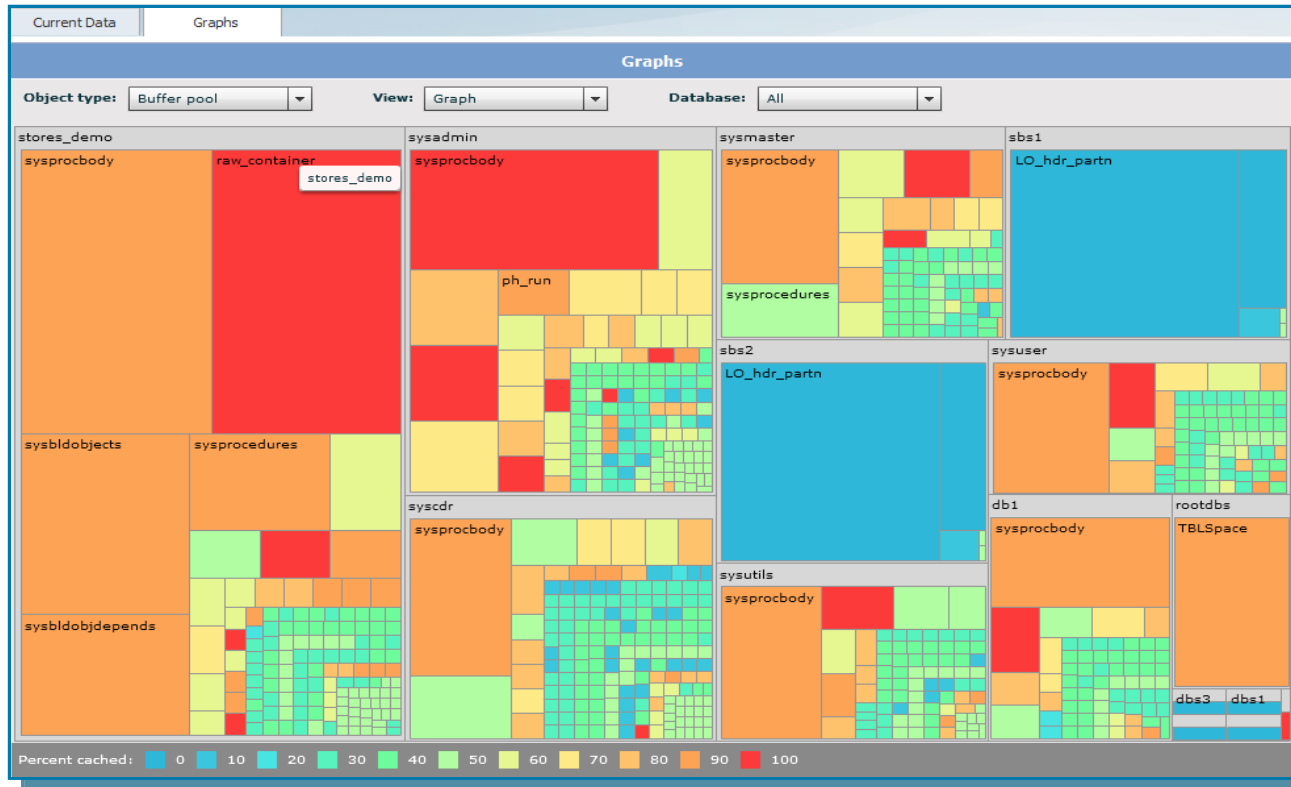
NEW! Mobile OpenAdmin Tool (iOS and Android)



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Informix 12.1: Simply Powerful

Easy to use with more visualization



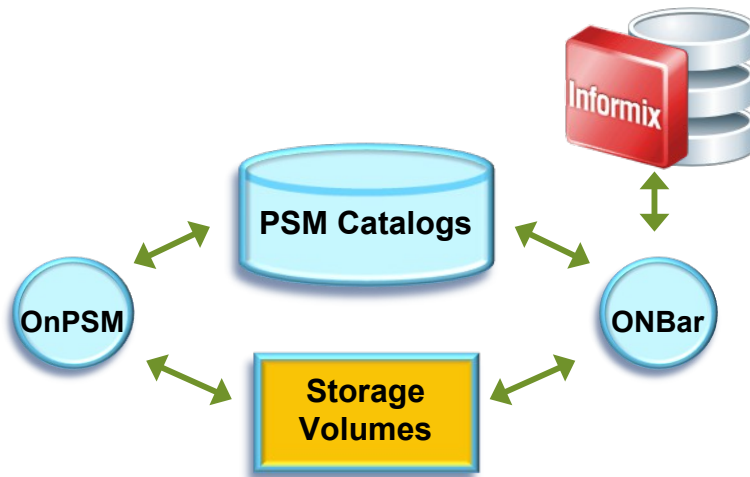
NEW! Heat maps identify hotspots and provide graphical usage information for fast and easy tuning

- Facilitates monitoring multiple servers from a single screen
- Customizable refresh rate for real time information

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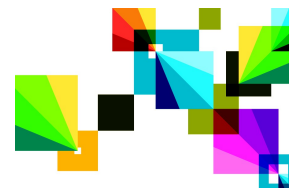
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Faster, easier Primary Storage Manager



	ISM	PSM
Number of program files	46	2
Size of programs shipped	25MB	2MB
Number of daemon programs	9	0
Startup steps	40	2
Max number parallel streams	4	Unlimited
Max transfer buffer size	64k	2GB
Integrated with db scheduler	No	Yes

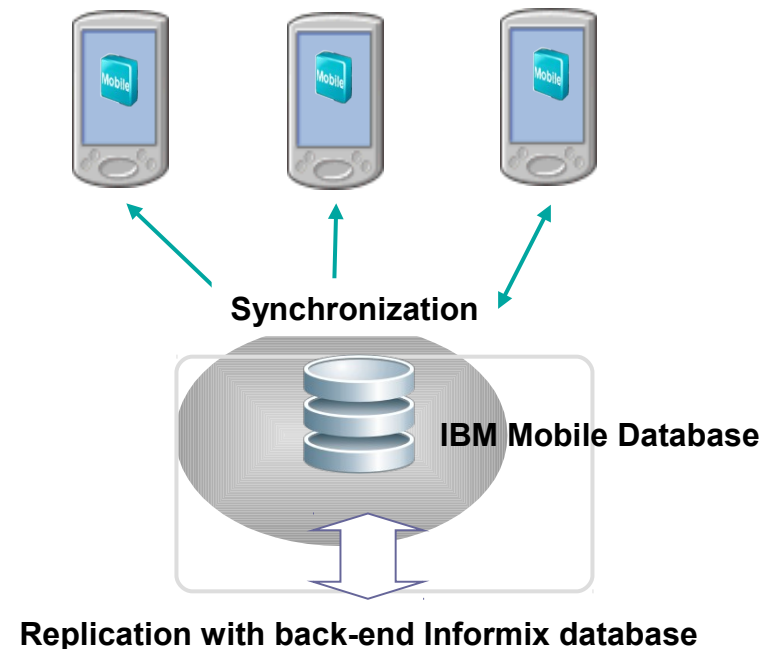
- Easy to integrate with OnBar to perform backups and restores
- Easy for embedded solutions to perform parallel backups and restores
- Easy for Ontape customers to migrate to OnBar



Informix 12.1: *Simply* Powerful

Easy to go mobile

- Informix Genero accelerates new generation of mobile and cloud-based applications
 - Compile once to deploy in browser-based, GUI, Windows, mobile and cloud environments
- **NEW!** Out-of-the-box integration with IBM Mobile Database
 - Persistent storage on mobile devices
 - Secure enterprise data on mobile devices
 - Seamless integration and synchronization with back-end Informix environments
 - Data available at all times
 - Easy installation with automatic updates
 - Modern development tools



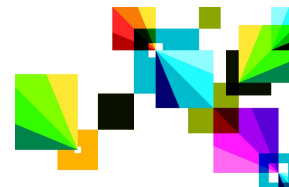
“The new and exciting features of Informix 12.1 let us quickly design the mobile solutions our customers need.”

- Miguel Carbone, CEO, MC Software

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Informix 12.1 Delivers Greater Value to Clients and Partners

Departmental Market



Advanced Workgroup Edition

- The ultimate in data warehouse performance for departmental, SMB/MM deployments
- Informix Warehouse Accelerator included
- Limited by cores
- Includes access to Cognos BI, Mobile Database, Mobile Database Sync

Workgroup Edition

- Mid-level offering
- Single server requirements with less intense workloads for both OLTP and analytics
- Core and memory limits
- Includes access to Mobile Database, Mobile Database Sync

Enterprise Market

Advanced Enterprise Edition

- The ultimate in data warehouse performance, scalability, and operational analytics
- All server features and Informix Warehouse Accelerator included
- No memory, socket or core limits
- Includes access to Cognos BI, SPSS Modeler, SPSS Statistics, Mobile Database, Mobile DBSync



Enterprise Edition

- Full enterprise class OLTP
- Optional compression features
- No memory, socket or core limits
- Includes access to Mobile Database, Mobile DBSync

Express Edition and Innovator-C

Developer Edition

Version 12 Name Changes

Informix V11.70

Informix Growth

Informix Growth Warehouse

Informix Ultimate

Informix Ultimate Hypervisor

Informix Ultimate Warehouse

Informix V12.10

Informix Workgroup

Informix Advanced Workgroup

Informix Enterprise

Informix Enterprise Hypervisor

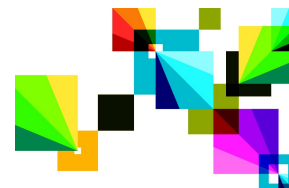
Informix Advanced Enterprise

Unchanged

Informix Developer

Informix Innovator-C

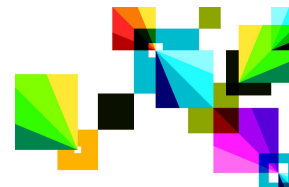
Informix Express



Informix 12.1: *Simply Powerful*

Agenda

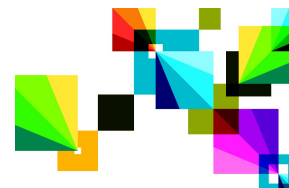
- Release Overview and Highlights
- Informix Data Warehousing & BLU Technology
- Cloud / Flexible Grid
- Sensor Data Management
- Embeddability / Compression
- Ease of Use / Mobile DB
- Informix Editions
- **Live Demo!** 😊
- Additional Information



Informix 12.1: *Simply Powerful*

Agenda

- Release Overview and Highlights
- Informix Data Warehousing & BLU Technology
- Cloud / Flexible Grid
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- Informix Editions
- Live Demo! 😊
- **Additional Information**



2013 IIUG INFORMIX CONFERENCE

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2013 IIUG Informix Conference

April 21 – 25, 2013

San Diego Marriott Mission Valley - San Diego, California, USA



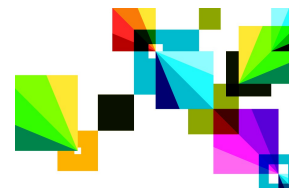
The International Informix Users Group (IIUG) announces the IIUG 2013 Informix Conference, to be held at the **San Diego Marriott Mission Valley** on April 21 - 25, 2013.

[Register now!](#)

IIUG members save an additional \$100 off registration thru April 18, 2013 so **join IIUG** and then register!

All >>paid<< attendees receive **Thursday tutorials included!**

For more details and a tentative list of sessions and speakers, visit the official conference web site www.iiug2013.org



IBM Information Management Forum, 15. bis 16. April 2013, Berlin

The screenshot shows the IBM website interface for the Informix Infobahn 2013 event. At the top, there is a navigation bar with the IBM logo, a search bar, and menu items like 'Home', 'Lösungen', 'Services', 'Produkte', 'Support & Downloads', and 'Meine IBM'. A main banner features the text 'Simply Powerful IBM Informix 12.1' with a blue background and light effects. Below the banner, the event title 'IBM Informix Infobahn 2013' is displayed, followed by a paragraph of introductory text. A central section titled 'IBM Informix' provides details about the agenda for May 15, 2013, and includes a link to the Informix User Group Homepage. On the right side, there are two sidebars: 'Ansprechpartner' for Monika Schneider and 'Insider' with a link to business analytics content. At the bottom, a table lists the event details for Munich on May 15, 2013.

Deutschland [ändern]

Suchen

Home Lösungen Services Produkte Support & Downloads Meine IBM Willkommen zurück [IBM Anmeldung] [Registrieren]

IBM Veranstaltungskalender

Simply Powerful

IBM Informix 12.1

IBM Informix Infobahn 2013

Auch in diesem Jahr gibt es wieder viele Neuigkeiten und Weiterentwicklungen zum Thema

IBM Informix

Die thematisch abwechslungsreiche und sicherlich sehr spannende Agenda der Infobahn am **15. Mai 2013** wird auch dieses Jahr durch Experten aus Deutschland und USA gestaltet. Praxiserfahrungen von Informix Kunden und Business Partnern ergänzen die Tagesordnung.

Gerne laden wir Sie zu diesen eintägigen Veranstaltungen ein. Ab ca. 19.00 Uhr findet zusammen mit der deutschen Informix User Group (IUG) ein Stammtisch im Hofbräukeller statt. Auch hierzu sind Sie herzlich eingeladen.

Melden Sie sich gleich an! Wir freuen uns auf Sie!

Am Donnerstag (16. Mai 2013) findet in der selben Lokation der 62. IUG Workshop statt. Auch Nichtmitglieder sind eingeladen. Bei Interesse melden Sie sich bitte direkt bei der IUG an

[link zur Informix User Group Homepage](#)

Für weitere Informationen und Registrierung zur IBM Informix Infobahn klicken Sie bitte den link unten.

Stadt	Anmeldung	Datum
München	Informix Infobahn 15. Mai 2013 - München	15.05.2013

Ansprechpartner
Monika Schneider
Telefon: +49 (0) 7034-15-1923
E-Mail

Insider
INSIDER
Fakten, Trends und Hintergründe zu Business Analytics & Optimization von IBM

Anmeldung unter: <http://www.ibm.com/de/events/informix>

IBM Information Management Forum, 15. bis 16. April 2013, Berlin

Obrigado!

감사합니다

ಧನ್ಯವಾದಗಳು

Vielen Dank

תודה

شكراً

Gracias

多谢



धन्यवाद

Thank You!

நன்றி

Merci

Grazie

Ευχαριστώ

Hvala

ありがとうございました

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Informix 12.1: Simply Powerful



Backup Slides



Informix 12.10 Edition Comparison



Components	Developer	Innovator-C	Express	Workgroup	Advanced Workgroup	Enterprise	Enterprise Hypervisor	Advanced Enterprise
Pricing Metric	Free	Free	AUSI, PVU LUVS	AUSI, PVU LU Socket	PVU	AUSI, PVU	PVU	AUSI, PVU
Processor/CPU VP Limit	1 core	1 core*	4 cores*	16 cores*	16 cores*	Unlimited	Unlimited	Unlimited
Install Memory Limit	1 GB	2 GB*	8 GB*	16 GB*	16 GB*	Unlimited	Unlimited	Unlimited
Install Data Limit	8 GB	8 GB*	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Warehouse Accelerator Memory Limit			N/A	N/A	48 GB	N/A	N/A	Unlimited
Replication Limits	Unlimited		2 root nodes*	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
HDR/SDS/RSS Limits	Unlimited		1 secondary*	2 secondary*	2 secondary*	Unlimited	Unlimited	Unlimited
Other Limits		Parallel Operations**, Distributed Operations, Private Memory Cache for VP, HPL, ER, HA Clusters, Compression, Partitioning, Others***	Parallel Operations**, Distributed Operations, Private Memory Cache for VP, HPL, Compression Partitioning	Parallel Operations**, Distributed Operations, Private Memory Cache for VP, HPL, Compression Partitioning	Parallel Operations**, Distributed Operations, Private Memory Cache for VP, HPL, Compression Partitioning			
Platforms	Linux *UNIX Windows Mac-OS	Linux *UNIX Windows Mac-OS	Linux *UNIX Windows Mac-OS	Linux *UNIX Windows Mac-OS	Linux *UNIX Windows Mac-OS	Linux *UNIX Windows Mac-OS	Linux RHEL AIX Power	Linux *UNIX
*Note: UNIX is AIX, HP-UX, Solaris								
IWA Platform					64-bit Linux			64-bit Linux

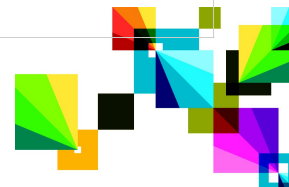
Bundled Software by Edition – Informix 12.10

Option	Developer	Innovator-C	Express	Workgroup	Advanced Workgroup	Enterprise	Enterprise Hypervisor	Advanced Enterprise
TimeSeries Plugin for Optim	x	✓	✓	✓	✓	✓	x	✓
Data Studio	x	x	✓	✓	✓	✓	x	✓
Informix SQW	x	x	x	✓	✓	✓	x	✓
Data Server Client V3.2	x	✓	✓	✓	✓	✓	x	✓
Mobile Database Sync V1.0 *	x	x	✓	✓	✓	✓	x	✓
Mobile Database 7.0.1	x	x	✓	✓	✓	✓	x	✓
Cognos BI V10.2	x	x	x	x	✓ 5	x	x	✓ 5
SPSS Modeler Professional Client V15.0 FP1	x	x	x	x	x	x	x	✓ 1
SPSS Statistics Desktop V21.0 **	x	x	x	x	x	x	x	✓ 1
SPSS Statistics Data Drivers V21.0 **	x	x	x	x	x	x	x	✓ 1
Storage Optimization	x	x	x	x	x	Option	Option	✓

BOLD - # of entitled users for bundled software

*Packaged with CDC 6.5.1 paper certified on Informix V12.10

**Includes SPSS Statistics Data Drivers (electronic download – no CD/DVD included)



Informix Product Features by Edition – 12.1

Features	Developer	Innovator-C	Express	Workgroup	Advanced Workgroup	Enterprise	Enterprise Hypervisor	Advanced Enterprise
Parallel Operations (DDL/DML/BAR)	✓	✗	✗	✗	✗	✓	✓	✓
Data Partitioning	✓	✗	✗	✗	✗	✓	✓	✓
Private Memory Cache VP	✓	✗	✗	✗	✗	✓	✓	✓
High Performance Loader	✓	✗	✗	✗	✗	✓	✓	✓
*Table, Index and Blob Compression	✓	✗	✗	✗	✗	Option	Option	✓
Distributed Operations	✓	✗	✗	✗	✗	✓	✓	✓
Enterprise Replication	✓	✗	✓	✓	✓	✓	✓	✓
High Availability Clusters	✓	✗	✓	✓	✓	✓	✓	✓
Shared Disk Secondary	✓	✗	✓	✓	✓	✓	✓	✓
Remote Stand-alone	✓	✗	✓	✓	✓	✓	✓	✓
Updatable Secondary	✓	✗	✓	✓	✓	✓	✓	✓
Informix Warehouse Accelerator	✗	✗	✗	✗	✓	✗	✗	✓
TimeSeries & Spatial Capabilities	✓	✓	✓	✓	✓	✓	✓	✓
Continuous Log Restore	✓	✗	✓	✓	✓	✓	✓	✓
SQL/Instance Administration	✓	✓	✓	✓	✓	✓	✓	✓
Open Administration Tool	✓	✓	✓	✓	✓	✓	✓	✓
Label Based Access Control	✓	✗	✓	✓	✓	✓	✓	✓
Web Feature Services	✓	✗	✓	✓	✓	✓	✓	✓
Column-level Encryption	✓	✗	✓	✓	✓	✓	✓	✓
Virtual Table Interface	✓	✓	✓	✓	✓	✓	✓	✓
Direct I/O – Cooked File	✓	✗	✓	✓	✓	✓	✓	✓
Point-in-time Table Restore	✓	✗	✓	✓	✓	✓	✓	✓
Primary Storage Manager	✓	✗	✓	✓	✓	✓	✓	✓
Last Commit Isolation	✓	✗	✓	✓	✓	✓	✓	✓
Multiple Triggers	✓	✗	✓	✓	✓	✓	✓	✓
Recovery Time Policy	✓	✗	✓	✓	✓	✓	✓	✓