

Обработка больших данных со скоростью мысли: представляем SAP HANA

Дмитрий Лисогор 23 марта 2012



Феномен больших данных: рыночные тенденции



Большие данные:
Высокая конкурентоспособность
Стратегическое преимущество



Пользователи и Устройства:
Непрерывная работа (Облако)
Мобильность
Социальные сети



Данные:
Непрерывная работа (Облако)
Мобильность
Социальные сети

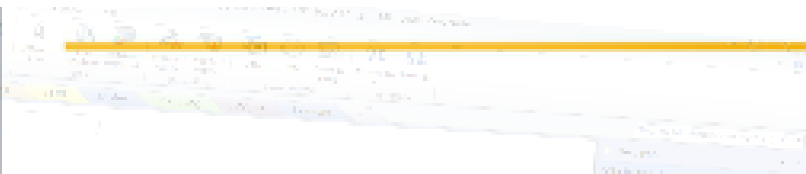


Технологии:
Эволюция интернета
Высокие скорости
Снижение стоимости
Большие мощности

«Контентный Бум»

Хранение и Анализ

Консьюмеризация ИТ



SAP HANA: Время – это ваше конкурентное преимущество

Анализ больших объемов данных в реальном времени

Гибкие аналитические модели на основе исторических и данных, созданных в реальном времени

Дублирование данных сведено к минимуму

Серьезная платформа для приложений нового поколения

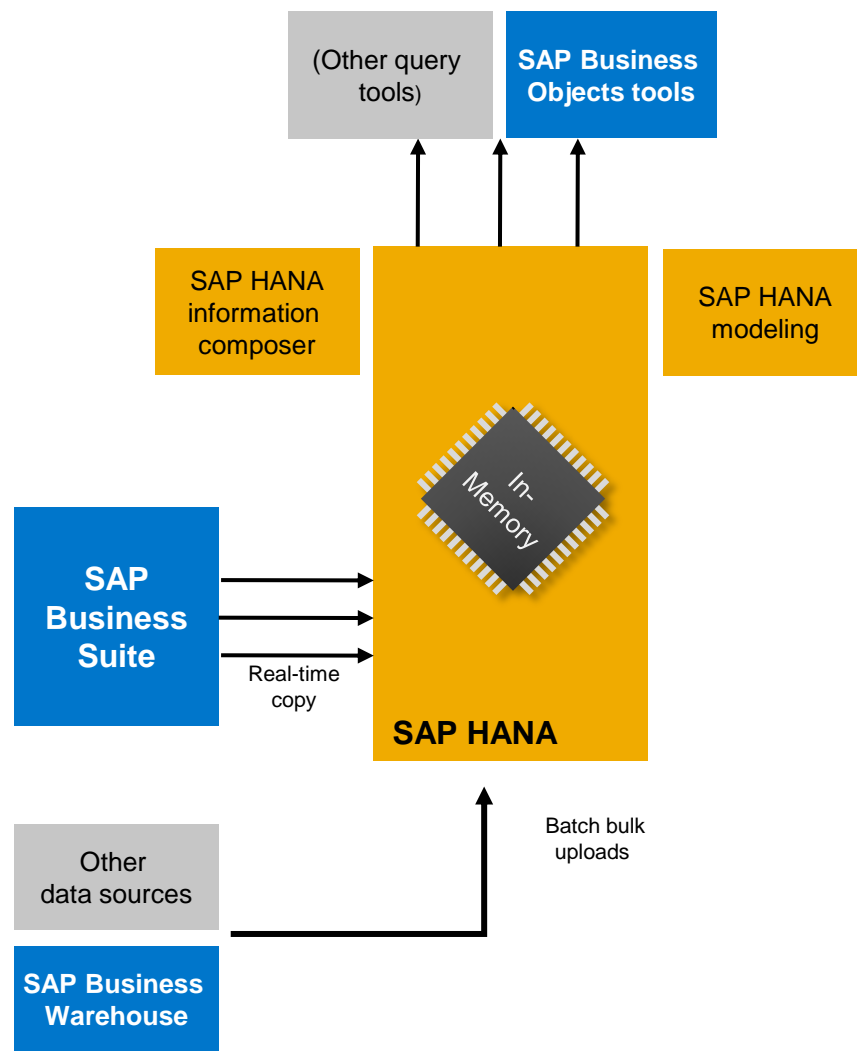


SAP HANA – платформа для очень реального времени

SAP HANA – современная инновационная платформа, работающая в оперативной памяти (in-memory)

Позволяет управлять бизнесом в режиме реального времени на больших объемах данных

Может быть внедрена как ПАК (программно-аппаратный комплекс) или предоставлена в «облаке»



SAP HANA – ощутимые выгоды для бизнеса

70 – 90%
Сокращение времени
подготовки отчетности и
данных для аудита

2% – 3%
Увеличение
дополнительных и
перекрестных продаж в
общем объеме продаж, (в %)



20% – 30%
Сокращение оттока
клиентской базы (в %)

80% – 100%
Оперативный
контроль и анализ
предоставляемой
скидки контрагентами

30% – 50%
Уменьшение совокупных
затрат времени финансовой
службы на подготовку
отчетности, а не её анализ

10% – 20%
Повышение точности и
оперативности прогнозов
продаж

* Данные результаты получены на выполненных проектах данных клиентов SAP

1

Скорость

Работай с гигантскими массивами данных в долю секунды

2

Мгновенная реакция

Управляй бизнесом в реальном времени

3

Работа с любыми данными

Анализ информации с структурированных и неструктурированных типов данных

4

Бизнес-инсайты

Модели по прогнозированию и сложный анализ данных

5

Приложения

Используй приложения следующего поколения

6

Облако

Воспользуйся одно из самых лучших облачных платформ

7

Инновации

Внедрение самой продвинутой платформы для инновации

8

Простота

Меньше уровней, проще ландшафт, ниже затраты

9

Ценность для бизнеса

Увеличивай бизнес-показатели при меньших затратах

10

Выбор

Работай с партнерами, которым ты доверяешь, на всех составляющих решения

Топ 10: Скорость

Управляй огромными массивами данных на высоких скоростях

SAP HANA Вычислительная Платформа In-Memory

SAP HANA позволяет организациям анализировать свой бизнес, обрабатывая огромные объемы информации, и мгновенно разворачивая и анализируя все операционные и аналитические данные практически из любого источника в режиме реального времени. Внизу реальный пример из внедрения HANA

Управление предприятием в реальном времени –

пример из жизни. Анализ использования HANA в компании FMCG. Компания анализирует данные продаж с розничных магазинов в реальном времени, что позволило менять сегментацию, мерчендайзинг, управление запасами и прогнозировать со скоростью мысли



Топ 10: Мгновенная реакция SAP HANA делает это возможным



Узнай, что происходит с бизнесом сегодня, и прими лучшее решение



Меняй план в соответствии краткосрочным колебаниями спроса и предложения



Используй текущие потребительские тренды



Планируй запасы с учётом ситуации в точках продаж

Адаптируй бизнес под внешние изменения быстро!

Топ 10: Работа с любыми данными, структурированными и неструктурированными

Глубокий анализ информации

SAP HANA интегрирует структурированные и неструктурированные данные из внутренних и внешних источников и может работать с детализацией без агрегации. SAP HANA может быть интегрирована в широкий спектр систем и работает с данными с БД Oracle, Microsoft SQL Server и IBM DB2.



Приложения: SAP и другие провайдеры



Текст



Социальные Медиа



Машинные данные



Внешний контент

Адаптируй бизнес под внешние изменения быстро!

Топ 10: Бизнес-инсайты - модели по прогнозированию и сложный анализ данных

До SAP HANA...

преднастроенные дэшборды, основанные на фиксированных требованиях бизнеса

Построение отчетов занимает очень много времени

Ограниченные возможности для прогнозирования

С SAP HANA Вы можете



Мгновенные ответы



Любые срезы данных



Последние данные из любых источников

Топ 10: Используй приложения следующего поколения

Преимущества уже сегодня



**Анализируй
прибыльность
в реальном
времени**



**Моделируй
организационную
структуру до
уровня
сотрудников**



**Сегментируй
клиентов с учётом
детальных данных**



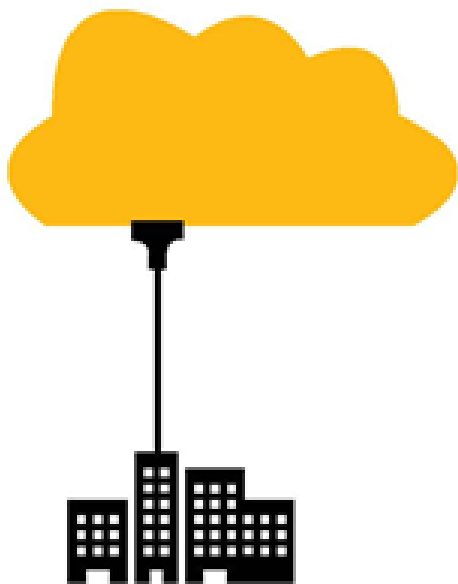
**SAP HANA
обеспечивает
новый класс
приложений
и аналитики
real-time для
организаций
любого
размера**

И завтра

SAP HANA будет платформой для приложений, аналитического контента и акселераторов для разных индустрий и функциональных служб

Топ 10: Воспользуйся одно из самых лучших облачных платформ

SAP HANA - движок нашего облака следующего поколения



Быстро

Единый программно-аппаратный стек устраняет задержки



Масштабируемо

Высоконадёжный облачный сервис поддержит любые масштабы деятельности



Безопасно

Данные защищены, стандарты безопасности проверены независимыми аудиторами

Топ 10: Инновационная платформа

Наша платформа – Ваше воображение

SAP HANA – новаторская технология в вычислениях in-memory. Легкая интеграция, гибкие настройки и революционные возможности позволят поддержать самые сложные запросы вашего бизнеса



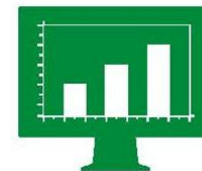
Энергетическая эффективность

Оперативный анализ данных от «умных счетчиков» позволяет сокращать себестоимость производства



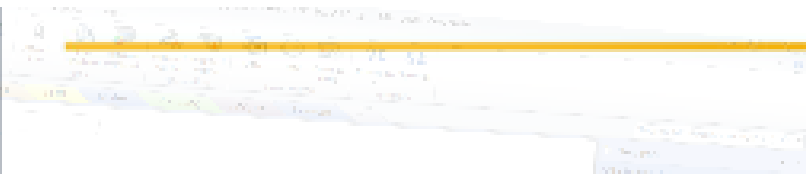
Диспетчеризация маршрутов в реальном времени

Использование данных GPS делает диспетчеризацию в реальном времени возможной



Предотвращение мошенничества

Выявление злоупотреблений в реальном времени позволяет избежать ущерба



Топ 10: Меньше уровней, проще ландшафт, ниже затраты



Топ 10: Ценность для бизнеса

SAP HANA поможет получить конкретные преимущества в бизнесе

Уникальные возможности SAP HANA позволяют оперативное управление бизнесом на новый уровень.

Отчетность в реальном времени и анализ со скоростью мысли поможет определить дополнительные источники дохода, а также, где можно сократить расходы



Оптимизируй источники выручки, продуктовую линейку и размещение с учётом актуальной информации о продажах и запасах



Повышай средний чек и объем бизнеса с клиентами за счёт мгновенного анализа эффективности текущего предложения

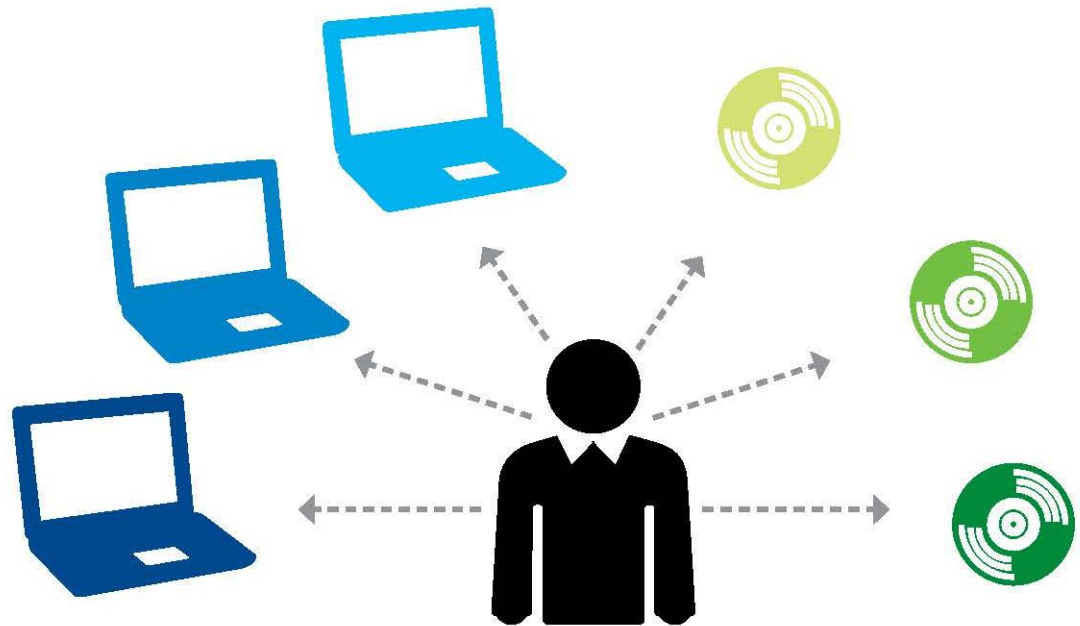


Прогнозируй и планируй уверенно, минимизируй затраты и риск недопоставки, знай тренды и потребительское поведение

Топ 10: Работай с партнерами, которым ты доверяешь, на всех составляющих решения

Выбор поставщика hardware и software за Вами.

SAP сотрудничает с большим количеством партнеров, что позволяет дополнить софтверную архитектуру в любой необходимой конфигурации.



SAP HANA: 270 заказчиков по всему миру

FMCG



Производство



Энергетика



Медиа и коммуникации



Услуги



Технологии

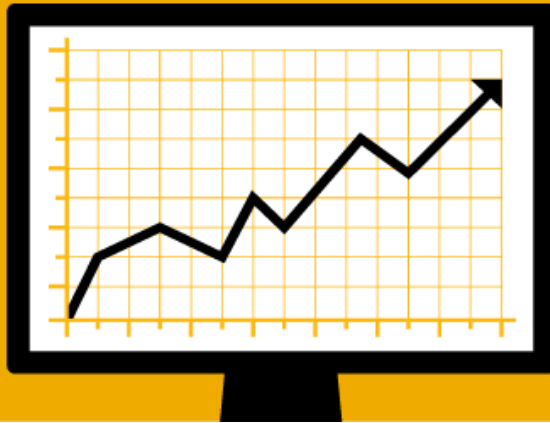




Спасибо Вам за внимание!

Истории успеха наших заказчиков










СУРГУТНЕФТЕГАЗ
ОТКРЫТОЕ АКЦИОНЕРНОЕ ОБЩЕСТВО

Сургутнефтегаз –
одна из самых
больших нефтяных
компаний в России.
Более 100,000
сотрудников






“ Наши производственные мощности разбросаны на сотни километров. Мы используем около 140,000 различных материалов, что ведет к созданию несколько миллионов записей в году. Все эти данные должны быть проанализированы, чтобы распределить их поставки территориально. Возможность работать с огромными массивами операционных данных напрямую в реальном времени – это огромное преимущество. С технологией SAP обработки данных в реальном времени мы управляем обеспечением и доставкой материалов и технических ресурсов. Также мы даем менеджерам гораздо больше свободы для анализа данных новыми способами. Я убежден, что у этой технологии огромное будущее.”

Ринат Гимранов, CIO






SAP HANA – истории успеха

Customer	Link	Customer Story	Solutions
Adobe 	Click Here	Adobe is using SAP HANA to analyze a large volume of complex data to gain business insights into software piracy, and to develop preventive strategies and explore significant revenue recovery opportunities.	SAP HANA SAP Business Objects BI
Infosys 	Click Here	Infosys utilizes SAP HANA to understand profitability by project, conduct “what-if” analysis on the fly with granular revenue and cost data. The company was able to explore and interact with key variables that affected a project’s profitability at all levels within the company.	SAP HANA
BASF 	Click Here	BASF, a German-based chemical company, uses SAP HANA to speed response times from minutes to seconds, and improve data reliability to optimize their business	SAP HANA SAP BWA
Bosch Siemens 	Click Here	BSH is using SAP HANA to better adapt to customer needs. BSH, with SAP In-Memory Computing, can now perform simulations and create business forecasts in seconds rather than days.	SAP HANA
Centrica 	Click Here	Centrica supplies gas and electricity to millions of homes and businesses and offers a wide range of energy services. Centrica uses SAP HANA to process and analyze vast amounts of data generated by its smart meter technology.	SAP HANA

SAP HANA – истории успеха

Customer	Link	Customer Story	Solutions
CISCO 	Click Here	SAP and Cisco are working together give customers the ability to make better decisions faster. With in-memory technology, and specifically SAP HANA, users have the ability to simplify the effective delivery of high-value information to business decision makers	SAP HANA SAP Business Objects BI SAP BWA
Colgate 	Click Here	Colgate uses SAP HANA in their Mexico branch to manage their sales profitability and analysis reporting, where now sales reps can run reports with real-time results up to 100-300 times faster driving immediate business impact.	SAP HANA
Deloitte 	Click Here	Deloitte is gaining clear and immediate insight into its current liquidity and cash flow information using SAP HANA.	SAP HANA
Hilti 	Click Here	HILTI is leveraging SAP HANA, to provide better flexibility and performance for reporting and analysis across multiple areas of the business based on millions of rows of data.	SAP HANA
P&G 	Click Here	P&G, the world's largest consumer product company, will use SAP HANA to build the next generation of financial planning and reporting applications, with speed that completely transforms what is possible today.	SAP HANA

SAP HANA – истории успеха

Customer	Link	Customer Story	Solutions
INTEL 	Click Here	SAP and Intel's co-innovation efforts with In-Memory Computing on Intel processors, is a game changing technology. SAP HANA reduces database query time from 77 minutes to 13 seconds, a 355x improvement in performance, when run on the Intel Xeon processor 7500.	SAP HANA
Lenovo 	Click Here	Lenovo uses SAP CRM today and plans to use SAP HANA to process 1.8 million contract records with multiple attributes in less than a second, simplifying IT and reducing TCO.	SAP HANA SAP Business Objects BI
Medidata 	Click Here	SAP HANA helps Medidata improve the way their clients manage clinical trials process to have real-time analytics available immediately, bringing value to every level within the clinical trial management process.	SAP HANA
Nomura Research Institute (NRI) 	Click Here	NRI, a research and consulting services provider, is able to use SAP HANA to analyze traffic information in Tokyo, and gained the ability to search through 360 million data records approximately 1 second	SAP HANA
T-Mobile 	Click Here	T-Mobile plans to use Strategic Workforce Planning application on the HANA platform to make real-time decisions very quickly—66 million calculations and returned the results in seconds to allow for immediate business decisions.	SAP HANA SAP Strategic Workforce Planning

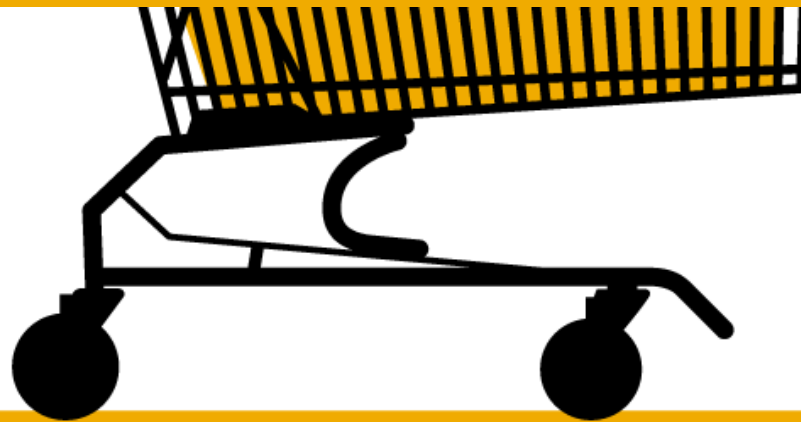


Colgate-Palmolive is a leading global consumer products company

“ For a global business selling products in more than 200 countries and territories, it is critical for us to understand sales trends at a high level as well as at a more actionable level by retail location and SKU to drive our business goals. Prior to SAP HANA*, we were unable to run full analytics in a reasonable timeframe. With SAP HANA, we will be able to run analytics at a local level on specific brands and locations, and at the lowest level of detail in real time. ”

Tom Greene, CIO

* SAP's In-Memory Appliance



Procter & Gamble 's well known brands serve 4.2 billion people around the world today

“ I see HANA changing the game at P&G. We have the potential to completely re-think the architecture of our transactional systems and our analytical engines around them. Going from several days to seconds to process this level of granularity gives our business a competitive advantage. Much lower levels of granularity and variety of reporting is now possible. SAP HANA technology will enable our business leaders to run their business real-time. ”

Jim Fortner, VP of IT Development and Operations



CEDC International is the world's largest vodka producer, with total sales of over 290 million liters annually

“ Having grown both organically and through acquisitions of plants and companies across Eastern Europe, we needed a powerful solution to help us reign in and make sense of that information. Because SAP HANA can process huge amounts of data from any source, it was the right solution for us. SAP In-Memory Computing will help us to gain better visibility into our sales force and plan our business strategy more accurately. ”

Piotr Majewski, IT Manager



Medidata Solutions
is a leader in
Software-as-a-
Service for Clinical
Development

“ Medidata's innovative solutions help life science organizations optimize the efficiency of their clinical trials, a highly data-intensive process, often generating billions of data points to demonstrate the safety and efficacy of just one drug or medical device. Clinical researchers are looking for new, different and better ways to analyze operational performance in real time. SAP In-Memory Computing gives us the potential to build highly interactive solutions for our customers without requiring them to go through a lengthy traditional data warehouse implementation. ”

Glen de Vries, President



B/S/H/

Bosch and Siemens Home Appliance Group has €9Bn in revenues and employs 42,000 people worldwide.

“ SAP HANA gives us the tools to instantly perform complex calculations and forecast the impact in any changes to our business. Traditionally, this is very difficult to do in a company of our size that deals with diverse channels, dispersed manufacturing and global product sales of over EUR 9 billion. Real-time insight into which products are selling and in what volumes lets us quickly adjust manufacturing and distribution strategies, giving us an advantage against competitors. ”

Dr. Juergen Sturm, CIO



BASF is the world's leading chemical company.

“ The ability to load the entire database into memory, to optimize it, the move to column-based database technology, to be able to then have an environment where both the transactional applications and the analytics are both working off the same source of data; this entire package is extremely compelling. Cost analysis (CoPa) was the most interesting thing to look at in the first step. We saw response times reduce from about 620 seconds to about five seconds in one case. “

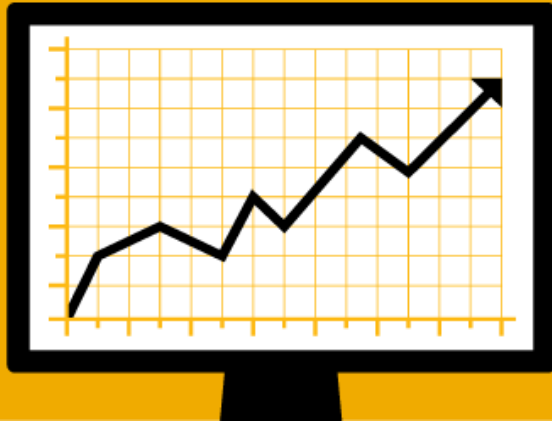
Andrew Pike, CIO



Hilti serves the professional construction industry, offering high quality tools and services on a global basis

“ We see a clear need to provide flexibility to our reporting community. Flexibility means, at the end of the day, performance. That’s why Hilti was searching for an innovation like HANA. By merging the analytical and the transactional world we see a clear opportunity for business transformation. Customer analysis took two to three hours – with HANA it takes two to three seconds. ”

Christian Ritter, Head of PCC, Finance, HR and Reporting



centrica

Centrica is a leading integrated energy company serving over 30 million customers in the U.K. and North America

“ With the smart metering landscape we are constantly getting a real-time flow of information back from homes and meters that are aware of their environment. With SAP HANA we have an ability to start to change the way we approach existing business problems and actually deliver immediate value straight back into our bottom line. HANA is allowing us to develop a lot more options, a lot more choices around how we implement our IS landscape – which effectively is taking cost out of our business. ”

Gavin Targonski, Head of Information and Integration Architecture



T-Mobile is one of the largest wireless providers in the U.S. with approximately 42,000 employees

“ T-Mobile is very interested in SAP’s strategic workforce planning application on the HANA technology platform for a couple of reasons. I see the SAP HANA technology offering a big value to T-Mobile because it allows us to really take advantage of the data that’s coming in real time, from our stores, from our sales systems, our billing systems, and make real-time decisions off of that. The speeds that we see coming out of the SAP HANA technology really take a lot of the pressure off my business folks to understand perfectly what they want when they are sitting down the first time. ”

Karen Escobedo, Director, ES Business Solutions



Canoe Ventures has created the largest national interactive television platform available working with their business partners.

“ To build a successful business with the many operators in our ecosystem, it is paramount that Canoe's solutions are flexible, scalable, secure and measurable. Our ability to scale is directly tied to our technical capability to interact with different distributor platforms and meet the needs of programming networks, their advertisers and their viewers. The capabilities of SAP HANA enable us to begin cost-effectively building an engine for delivering the reporting and analytics that advertisers need to engage viewers more effectively and in a secure manner to enhance the TV experience and justify their advanced television advertising spend. ”

Domenic Centofanti, VP - Chief Data Architect



Deloitte.

Deloitte is a leading global management consulting firm and systems integrator

“ Knowing your cash position is increasingly important to a firm but the visibility is not always that easy. The number of records you are working with is tremendous. SAP HANA gives you the possibility to do simulations which today with traditional systems are not possible. ”

Stephan Raemaekers, Managing Partner



Nomura Research Institute provides an end-to-end services portfolio including management and systems consulting

“ We are currently performing tests on large volumes of traffic data using SAP HANA. The product has enabled us to search through 360 million data records in just a little over one second. This is indeed an incredibly fast speed for this amount of data. We had heard that SAP HANA enabled extremely strong performance, but to actually see and experience the speed and high performance firsthand is simply amazing. Now and in the future, speed is the key to adapting to an ever-changing business environment. The speed SAP HANA enables is sudden and significant, and has the potential to transform entire business models. ”

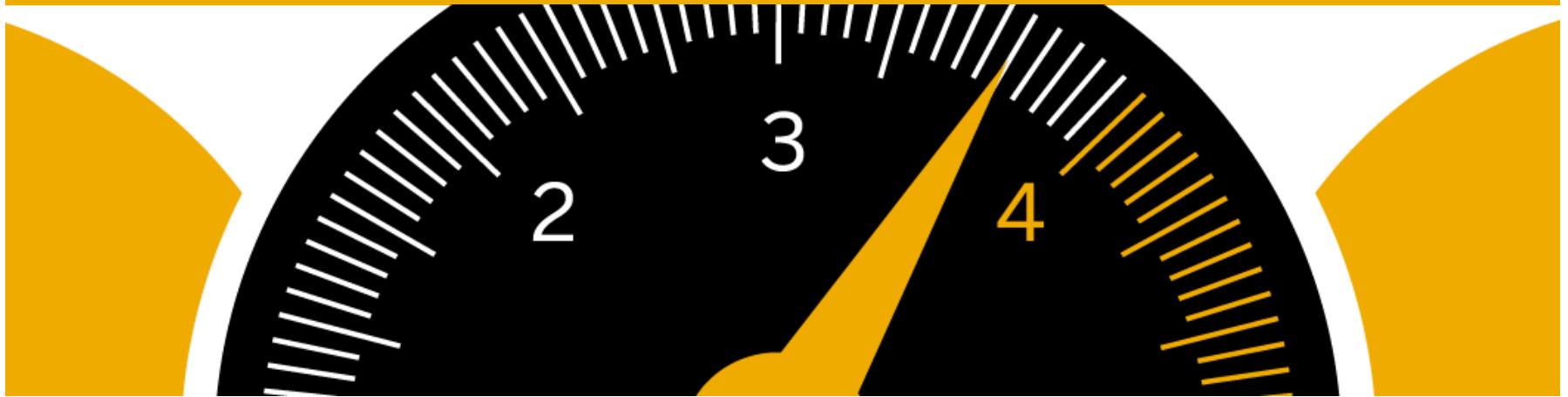
***Akihiko Nakamura, corporate senior vice president,
Services & Industrial Solution Division***



Infosys is a \$6Bn company that designs and delivers technology-enabled business solutions for global 2000 corporations.

“ A real-time consistent view to data and powerful analysis of information is important to us. It is in this context that we have chosen to do a pilot of HANA with SAP. Managers and leaders can view current margin information in real time, make real-time simulations and use it to enable corrective actions. Given its computing capabilities, HANA does seem to hold a lot of promise of a more design and consumer experience driven approach that is not constrained by data volume and performance challenges. ”

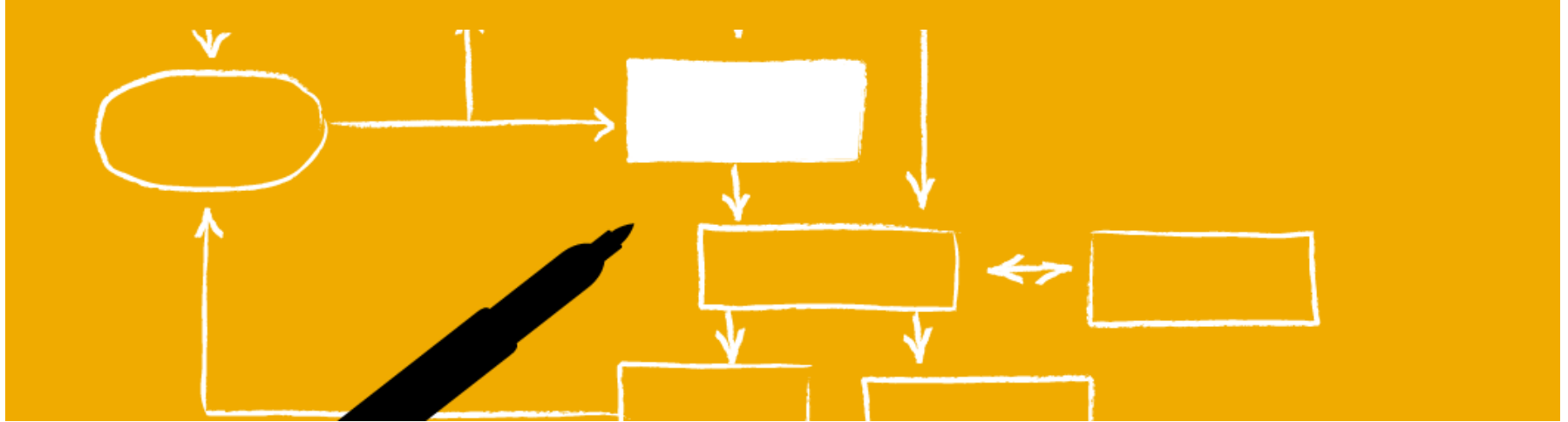
Suryaprakash KS, VP, Information Systems



Intel is the world's largest semiconductor chip maker.

“ People don’t want to wait for data, they want real-time access to that information – not just from the CEO of the corporation or the CFO, but all the way down to the product manager. SAP HANA in memory database appliance makes unprecedented use of the technology from Intel – the fastest microprocessors on the planet. SAP is always pushing us and our processor technology to the limits. ”

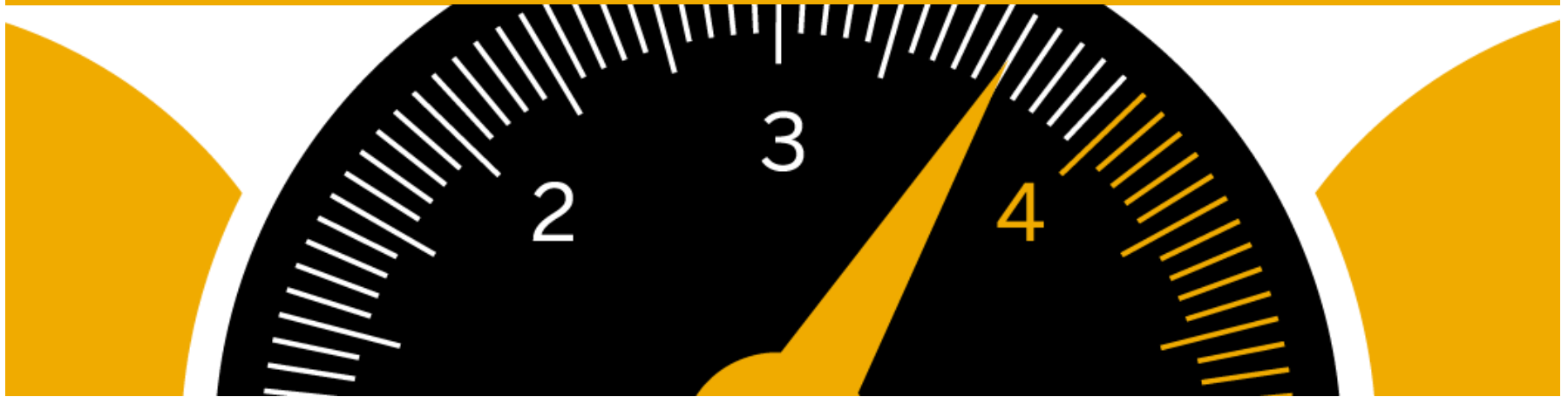
Kirk Skaugen, VP & General Manager



Cisco is the worldwide leader in networking and has transformed the way people connect, communicate and collaborate.

“ The combination of rapid analytics with in memory computing and the user experience of SAP BusinessObjects tools enhances our ‘explore and act’ capabilities on large volumes of data. In memory computing represents a significant shift in technology. It will give our customers the ability to make better decisions faster, with new ways to look at their business based on instant, intuitive access to relevant information. ”

Padmasree Warrior, Sr. VP of Engineering and CTO

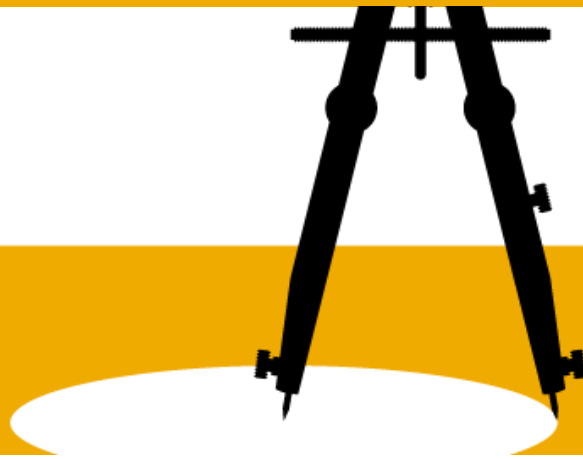


lenovo®

Lenovo is the fastest growing company in the PC industry

“ In an industry where products become obsolete quickly, we need both a deep and instant knowledge of customer behavior and products being sold globally. That's why Lenovo chose SAP Customer Relationship Management and supercharged it with SAP HANA. Using these solutions side by side will allow us to analyze orders by customer, region or product. This will improve our forecasting abilities and we'll be able to introduce new products and services faster. Reporting on stale data is dead – we now explore the data on the fly and run the business based on the most recent events, customer relationships and product plans. ”

Xiaoyu Liu, vice president, Global Application Development



Adobe Solutions Incorporated is a leading provider of business, creative and mobile software with revenues of \$3.8 Billion

“ An obvious place where we thought we could apply the technology was high volumes of data processing in our efforts to stem the piracy of our software. The initial feedback from both IT and our business units has been very positive as this demonstrates how our customer, financial, and unstructured data can be brought together rapidly and then visualized by the user through BusinessObjects to expose the linkages and correlations. We think that the SAP HANA solution could be a transformational technology that is looking very promising and can have many applications in the enterprise. ”

Shantanu Narayen, President and CEO