



XANBELL TECHNOLOGIES

March, 2017

Business Profile

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ABOUT US

XanBell is IT company setup by senior IT professional entrepreneurs worked in companies liked EMC, IBM, Oracle, HP & SAP.

Headquartered in Canada with an offshore delivery center in Bangalore, India

Focused in providing technology and consulting services for ISVs, SaaS, Medium and large Enterprises.



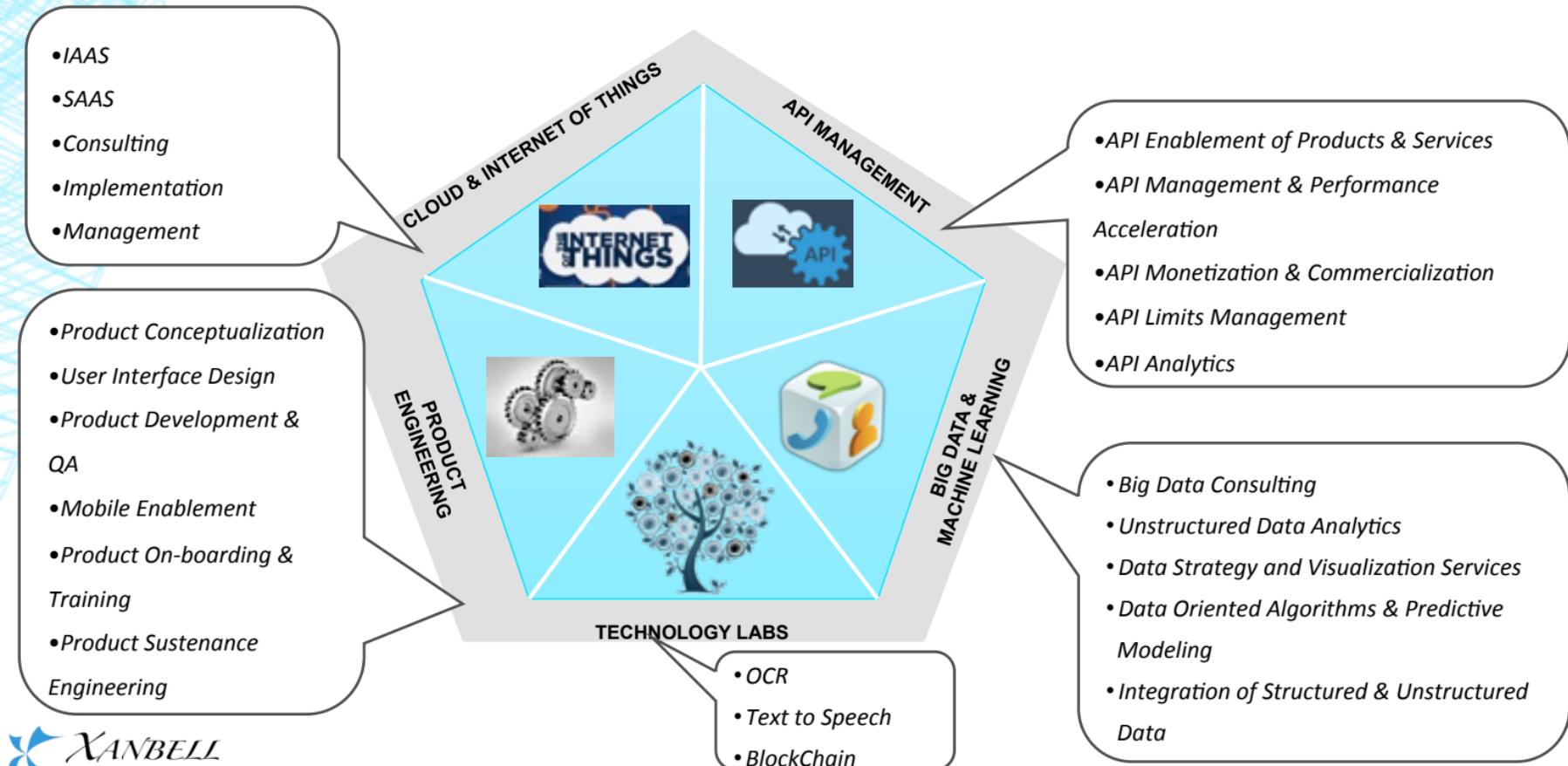
Experienced in delivering complex, chaotic, high risk implementation projects on *SaaS Products, License Solutions & Technology R&D Services*



Global exposure across Retail, Insurance, Banking & Telecom Domains

Value-based, Fixed Price, CoE & T&M engagements, which are statements of commitment to deliver value to our clients.

OUR SERVICES



MANAGEMENT TEAM

Sanjay Sharma

*Co-Founder & Director,
Consulting Services*



Short Bio:

Supply Chain, Analytics, IT and ERP transformation, implementation and product development.
Extensive experience in architecting and delivering large IT projects for customers in Europe and North America.

Past:

- ▶ Strategic Programs and Portfolio Lead at SAP,
- ▶ Solution Architect at Hewlett Packard
- ▶ Design Manager at Reliance Industries

Pankaj Pathak

*Co-Founder & Director,
Engineering Services*



Short Bio:

Product & Application Development Manager with extensive experience in implementing Enterprise Mobility, e-Commerce, SOA and Business Intelligence solutions. Pankaj has two patents in distributed applications

Past:

- ▶ Principal Engineer at Oracle
- ▶ Senior Tech Lead at Motorola
- ▶ Application Architect at IBM Global Services
- ▶ Software Engineer at Tata Technologies

Mamta Dalmia

*Director,
Analytics Services*



Short Bio:

Analytics solutions and database technology.
Manager with extensive experience in delivering large projects in South East Asia and North America for Healthcare and Financial Services customers.

Past:

- ▶ Program Manager at Hewlett Packard
- ▶ Client Manager at SAP
- ▶ Group Consultant at NIIT
- ▶ System Manager at Pertech Computers

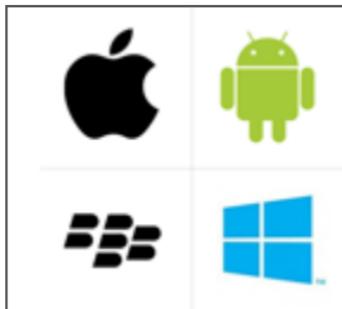
PRODUCT ENGINEERING

Overview

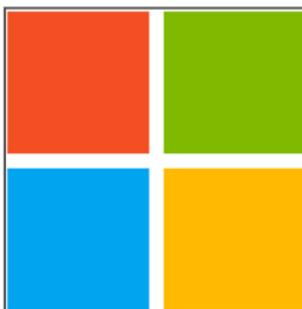
Developing and Maintaining Business critical and complex systems is a daunting task. Whether you are designing a new system that needs to operate on real time data or making changes to an existing production application, expert oversight and review goes a long way in making sure that the system will hold itself together when it goes live

What we do

We provide services around the following areas



Mobile Technologies



Microsoft Technologies



Advanced Web



Open Source

API MANAGEMENT

Overview

Success of Netflix and Amazon with micro services is one of the most talked about examples of how real enterprises are taking advantage of this new architectural pattern. Hence API management is playing more critical role than ever by allowing developers build interesting, innovative applications for customers. Banks, Hotels, Retail & Telecom firms are making money by offering their text and billing capabilities over platforms like ApiGee, CA API Mgmt. (Layer7), MuleSoft ESB & API Mgmt.

What we do

We provide services around the following areas



API Development



API Management



API Monetization



API Analytics

TECHNOLOGY LABS

Overview

Technology Labs (COE) is what helps you disrupt a business and keeps you leaps and bounds ahead of the competition. Not all companies can afford to invest in dedicated research team. Through our technology labs, we partner with our clients to research and prototype solutions and provide competitive edge to their business.

What we do

We provide services around the following areas of technology research and prototyping



Virtual Reality



Text to Speech



OCR



Block Chain

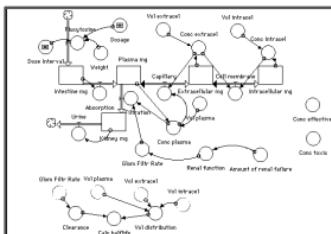
BIG DATA & MACHINE LEARNING

Overview

We have rich experience in processing large volume of data, analyzing range of potential correlations, relationships between disparate data sources and turn Big Data into usable knowledge through customized products and services, using algorithms like AI, Clustering, Adaptive, Logistic, Ridge regressions etc.

What we do

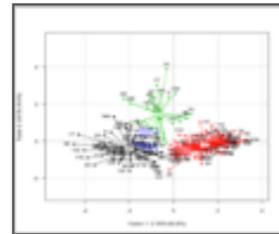
Following are some of our key service areas



Algorithms
Implementation



Predictive
Analysis



Clustering &
Classification



Data Visualization

CLOUD COMPUTING

Overview

Extending the existing IT datacenter infrastructure using IAAS or running & managing your apps from anywhere using PAAS or using existing services that can be easily integrated into existing applications involves assessing and adopting the Cloud platform that best suits your ecosystem. Having partner who can help you do all this quickly will go a long way in achieving of your business goals.

What we do

We provide expertise in the following areas



INTERNET OF THINGS

Overview

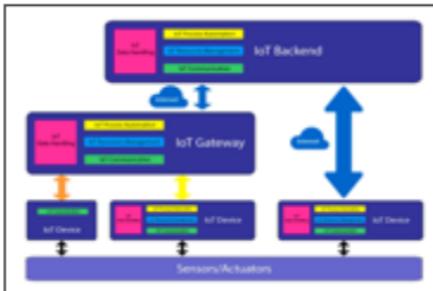
Internet of Things, offers unique opportunities for enterprises to establish connectivity to various systems and potential transformation enabled through connectivity. However the IoT ecosystem is quite fragmented and requires customers to deal with multiple vendors. We have a comprehensive set of service offerings and assets, to help customers unlock business value.

What we do

We provide expertise in the following areas



IOT Consulting

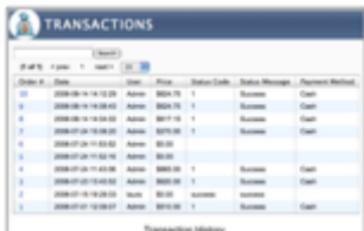


IOT Implementation



IOT Management

SOURCES OF ANALYSIS

Unstructured Data	 Blogs	 Expense Receipts	 Social Media Conversations	 Emails
Structured Data	 Historical Data	 Transaction History	 User Behavior	

ANALYTICS OFFERINGS

 Automation	<ul style="list-style-type: none">IoT IntegrationWarehouse & Inventory Mgmt.Supply Chain VisibilityReorder & Safety Stock Alert	 Marketing	<ul style="list-style-type: none">Channel OptimizationCustomer SegmentationDiscount TargetingCompetition Analysis
 Risk Analysis	<ul style="list-style-type: none">Credit RiskFraud DetectionAccounts Payable RecoveryAnti-Money Laundering	 HR	<ul style="list-style-type: none">Resume ScreeningEmployee ChurnTraining RecommendationTalent Management
 Customer Support	<ul style="list-style-type: none">Call Center AnalyticsCall Center Message OptimizationCall Center Volume Forecasting	 Sales	<ul style="list-style-type: none">Lead PrioritizationDemand ForecastingSocial Media Sentiment Analysis
 Human Network	<ul style="list-style-type: none">Relationship AnalyticsStrongest Link PredictionPredicting Common InterestsNews of Interest	 Finance	<ul style="list-style-type: none">Lost Discount CommitmentsContract AnalysisExpense Receipt Automation

TECHNOLOGIES

Languages & Frameworks	   STORM 
Machine Learning	  
Map Reduce Frameworks	  
Text Analytics	    elasticsearch.
NO SQL/ Storage	    GridFS

TECHNOLOGIES



FRAMEWORKS /
TOOLS



DATABASE



IBM
DB2



ORACLE

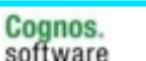


Microsoft
SQL Server 2008



INTEGRATION

BUSINESS
INTELLIGENCE



BIG
DATA



App Servers



ENDECA



A Microsoft Subsidiary



Pivotal Cloud Foundry™

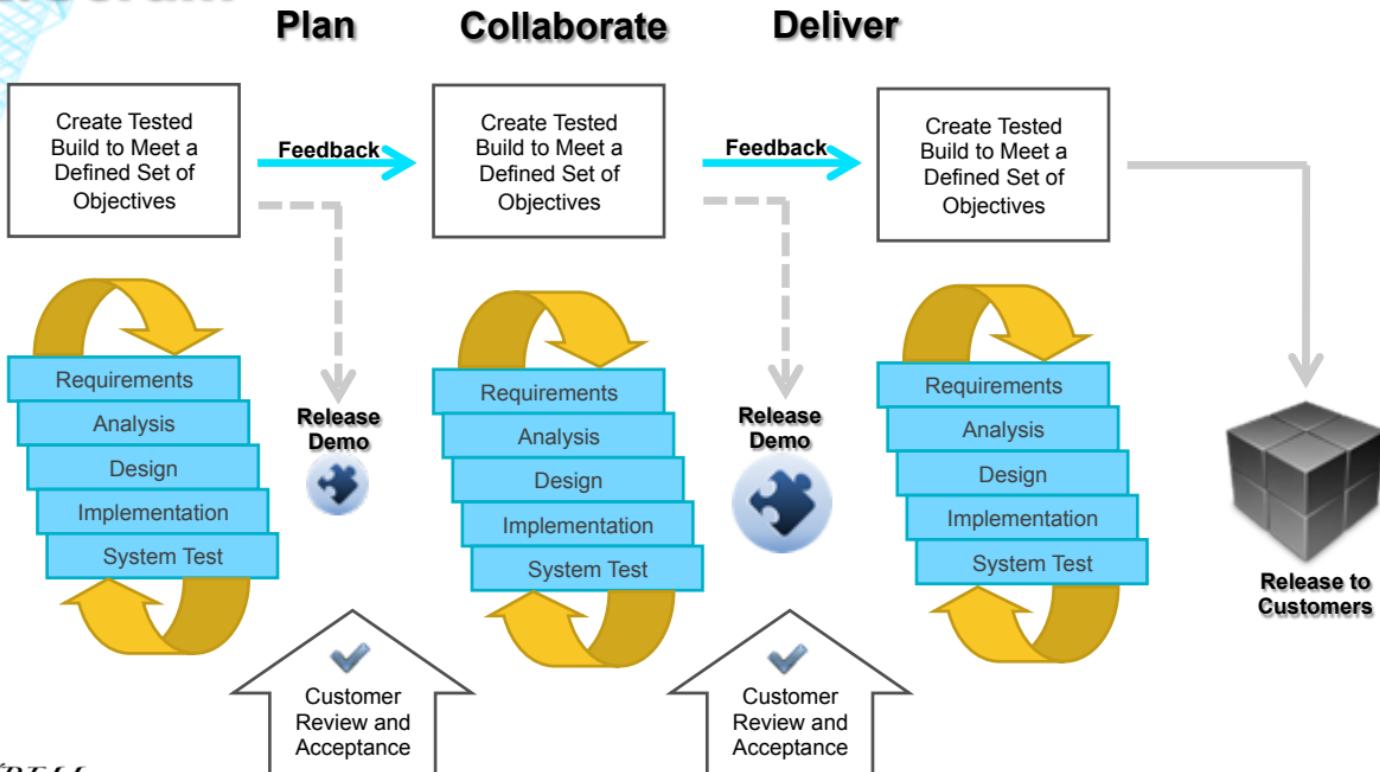


SEARCH PLATFORM



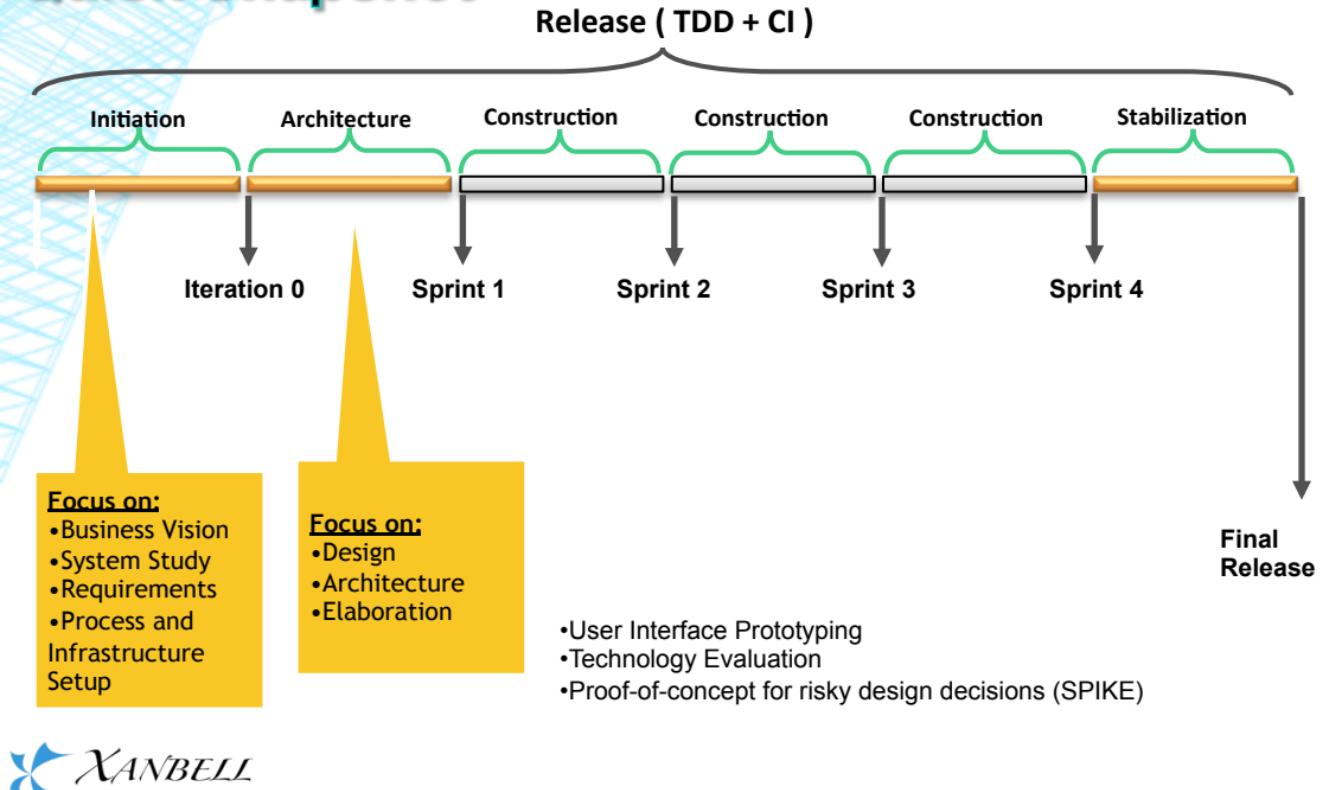
METHODOLOGY

Agile/Scrum



METHODOLOGY

Quick Snapshot



Project Management Tools:

- Redmine
- Jira/Trac
- RallyDev

QA Tools:

- Selenium
- JMeter
- Soap UI

Deployment Tools:

- Jenkins
- Emma/Cobertura

Build Automation:

- CC.NET
- Maven
- Sonar

Documentation:

- Wiki
- Confluence

COMMUNICATION MODEL

Monthly Management Reviews

- ✓ Metrics
- ✓ Best Practices
- ✓ Execution Discipline
- ✓ Deliverable Reviews



Quarterly Management Reviews

- ✓ Areas of strength, Areas to Improve
- ✓ Corrective and Preventive Actions for Areas of Concern
- ✓ Address areas of concern and reinforce areas of strength

Daily

- Scrum
- Scrum of Scrums
- Updates

Weekly

- Mid-Iteration Demos
- Weekly Status Tracking
- Risk Management

Iteration

- Iteration/Sprint Demo
- Metrics
- Retrospective

Monthly

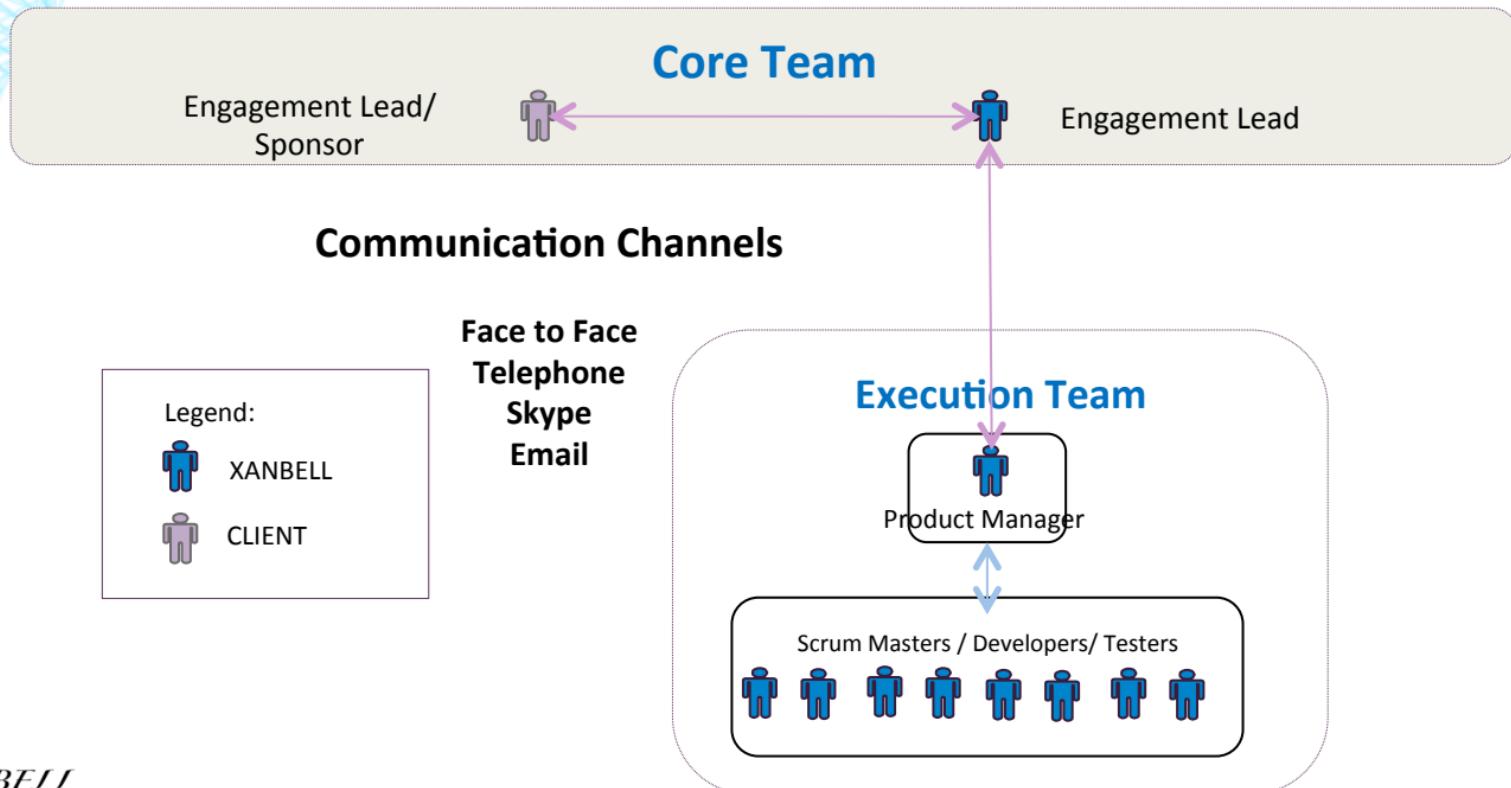
- Time-sheets
- Engagement Review
- Infocus – one-one review with team members

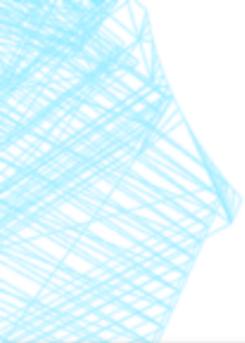
Quarterly

- Metrics Revision
- Customer Satisfaction Survey



ILLUSTRATIVE COMMUNICATION MODEL





Selected Case Studies Big Data & Mobile

CASE STUDY I

CUSTOMER



Health care organization

Location: US

BUSINESS PROBLEM

- Process several hundred thousand patients' hospitalization records
- Over a decade worth information, collected from over a 125 hospitals
- Identify methods to reduce healthcare costs
- Reduce patient readmission to avoid penalties
- Predict cost benefits with increased Length Of Stay when compared to Emergency Readmissions

BUSINESS OVERVIEW

A U.S. Health care organization wanted insight into their data to identify procedures to improve patient care while reducing healthcare costs

SERVICES PROVIDED

- Big Data Analytics

SOLUTION

- Use of Big Data technologies to process extremely large scale of data
- Extract data from electronic medical record clinical free-text
- Applied machine learning techniques for classification, feature selection
- Batch and real time distributed processing for fast processing of data.

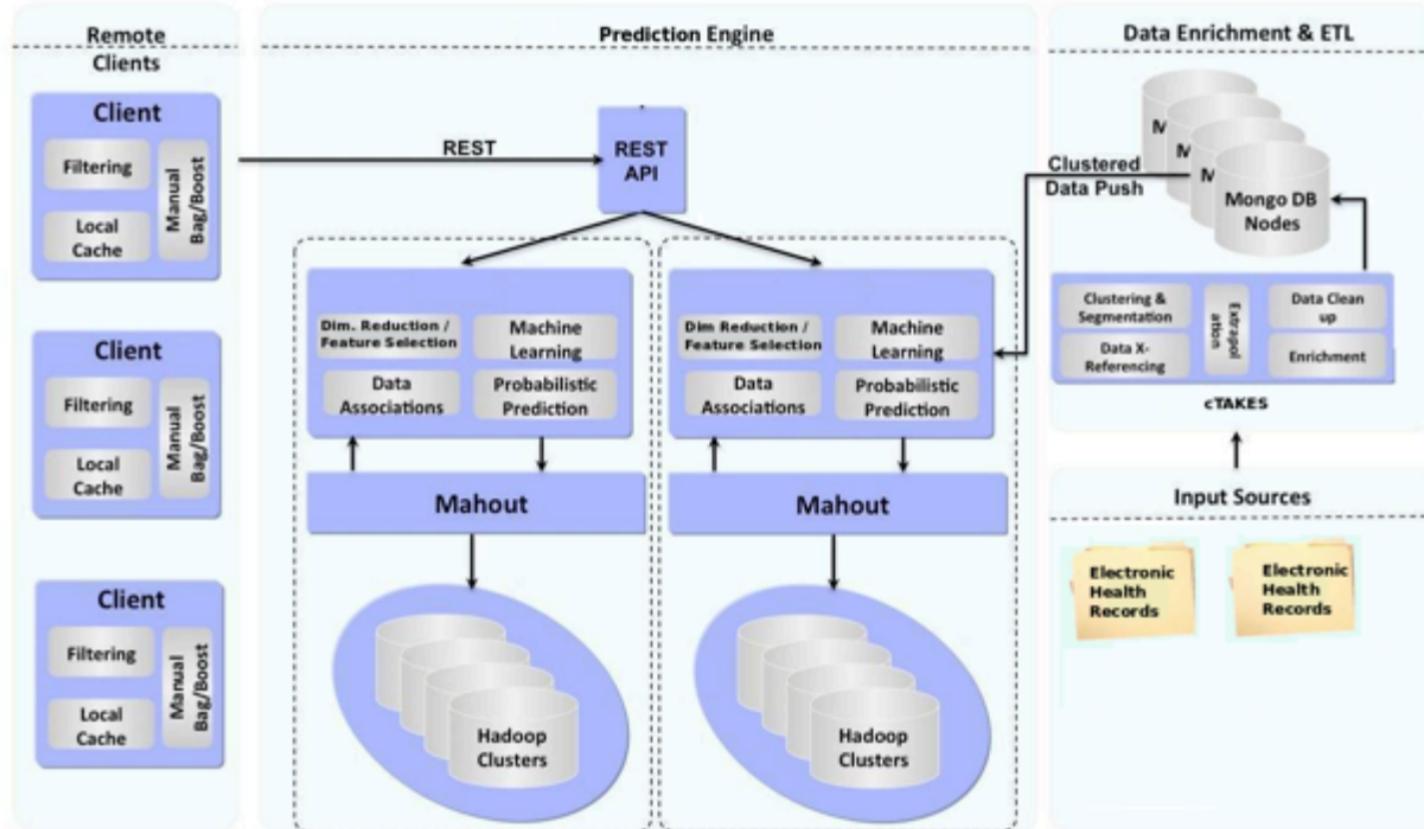
RESULTS/ DELIVERABLES

- Designed, implemented and successfully delivered the POC on time.
- Provided an optimally performing application providing high accuracy prediction
- Used research oriented approach to trying different candidate solutions approaches
- Final solution based on comparative evaluation, both from an ML and real life considerations

Technology Stack

- ✓ Hadoop + Mahout
- ✓ cTakes
- ✓ MongoDB
- ✓ Java
- ✓ Spring BOOT
- ✓ Momentum

CASE STUDY I DESIGN



CASE STUDY | HIGHLIGHTS

- Processed Electronic Medical Records (clinical free-form text) using open source NLP for medical records
- Devised classifiers featuring both general demographics like age, gender, etc; AND medical specifics like primary + secondary diagnosis, number of medication, lab results
- Constructed several models: Naive Bayes, Regressions (with regularizations), Random Forests, kNN
- Selected the best based on a judicious mix of model evaluation metric (F1 score) and real life requirement (Accuracy of readmission prediction using Confusion Matrix)
- Report generation involved:
 - Computation of comparative expenditures. Some example reports:
 - Average savings: Extending LOS v/s LOS + emergency readmission
 - Average savings: Extending LOS v/s LOS + non-emergency readmission
 - Complex aggregation queries on MongoDB listing similar symptoms which required readmissions

CASE STUDY II

CUSTOMER

Stealth Mode Startup
Location: US

BUSINESS OVERVIEW
A US based startup wanted to develop a data management platform to process TV viewing records from different data sources and classify users into different segments based on their viewing pattern

SERVICES PROVIDED

- Big Data Analytics

- BUSINESS PROBLEM**
- Process 100 Million TV viewing logs data everyday
 - Provide recommendations for the programs and advertisement that a particular user might be interested in.
 - Generate aggregation reports on the viewing of a universe of TV viewers
 - Classify unknown users into different segments based on their viewing habits

SOLUTION

- Use of Big Data technologies to process extremely large scale of data
- Applied machine learning techniques for classification, clustering and recommendations
- Batch and real time distributed processing for fast processing of data.

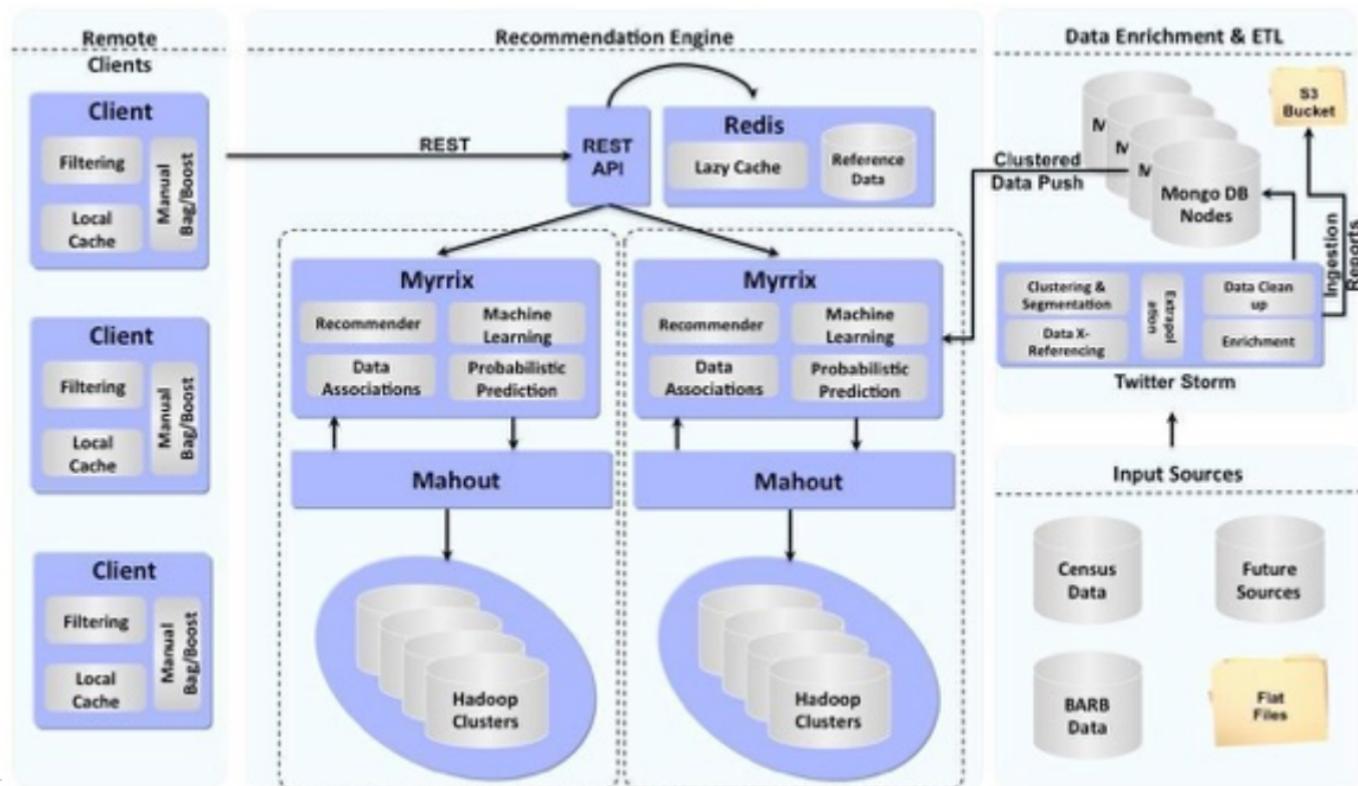
RESULTS/ DELIVERABLES

- Designed, implemented and successfully delivered the first two phases of the application on time.
- Provided optimally performing application to process large amount of data and high accuracy of the recommendations generated.
- Used a research oriented approach for trying different candidate solution approaches before deciding the final solution

TECHNOLOGY STACK

- ✓ Hadoop + Mahout
- ✓ Twitter Storm
- ✓ MongoDB
- ✓ Myrrx
- ✓ Java
- ✓ Momentum

CASE STUDY II DESIGN



CASE STUDY II HIGHLIGHTS

- Devised a Bayesian Classifier Based on Viewing History and Data collected from Open Sources, that classifies a Customer / Viewer into certain demographics like age, gender, etc.
- Constructed a Weighted Linear Regression Algorithm for predicting viewing patterns of Customer Segments based on historical data, region and demographics.
- Report generation involved complex aggregation queries on MongoDB. Some example reports:
 - Adverts Viewed by each Customer in the course of each day, split hourly
 - Viewing Habits of each Customer; for instance, the top 10 programs viewed, top 10 recommendations, etc
 - A similarity report which lists each program along with the programs which are most similar to it.

CUSTOMER

SUM360

BUSINESS OVERVIEW

Sum360 is a US based start-up developing a product that manages your contacts and communications cross channel while enabling you to maintain your professional relationships and conversations.



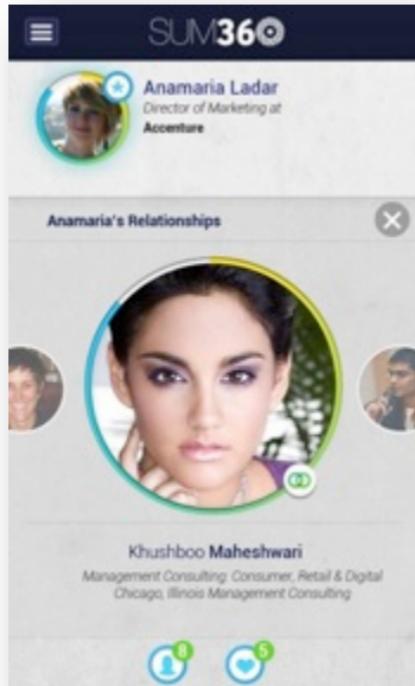
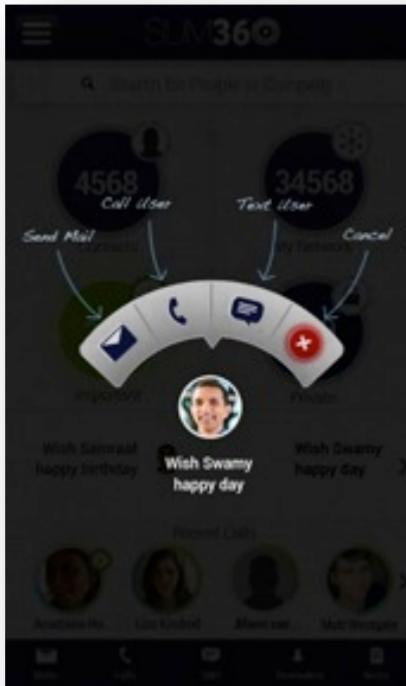
SERVICES PROVIDED

- E2E Product Development
- Android App Development



CASE STUDY

III



SUM360

Anamaria Ladar
Director of Marketing at
Accenture

Anamaria's Relationships

Khushboo Maheshwari
Management Consulting: Consumer, Retail & Digital
Chicago, Illinois Management Consulting

Call 5

SUM360

Search for People or Company

Alex Leventhal Avlok Kohli Andreas Knoefel

Ann Hadley Anthony Bishop Khusboo Mahe...

Allen Skinn Anand Eswaran Ashley S. Falvey

Bob McKenna Bill Daniel Bob Robinson

B

SUM360

Anamaria Ladar
Director of Marketing
Accenture

Anamaria's Contacts

Alex Leventhal Avlok Kohli Andreas Knoefel

Ann Hadley Anthony Bishop Khusboo Mahe...

Allen Skinn Anand Eswaran Ashley S. Falvey

Bob McKenna Bill Daniel Bob Robinson

B

SUM360

Anamaria Ladar
Director of Marketing
Accenture

Call SMS Send Mail

Mutual Connections with Khusboo maheshwari

Peter Smith
CEO Consulting at SDX International

Keith Laska
CEO | Cloud Expert | SaaS Scaler | Big Data...

Mark Reid
Chief Information Officer

Sophie Hurst
Marketing Specialist for Small to Medium...

Garry Levitt
Regional Director at SDX International

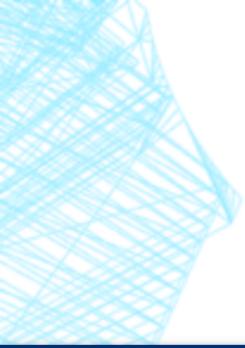
Mark Tapling
Consultant to Board of Directors Packet Video...

Dominic Kinnon
CEO Global Solutions

Swamy Viswanathan
Senior Vice President Products and Marketing at SDX

Call 5

CONT....



Selected Case Studies IoT & BI

CASE STUDY#1 – SMART IMS ON PAAS

Inventory Management System is heart for any company. XanBell's Smart IMS system leads to more organized warehouse and help save time & money

Highlights:

- RFID technology based inventory management solution for component manufacturing
- This application is based on Cloud Foundry Architecture & deployed on PAAS systems like GE Predix, Pivotal Cloud Foundry & IBM BlueMix.
- Extensible to other sensors like Barcode, Temperature, GPS, Active tags etc.
- Mobile Application to mange & view inventory
- Zero Software maintenance & scalable solution which supports rapid delivery of new features & capabilities

PAAS FASTER INNOVATION

Traditional On-Premises

Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking

Infrastructure as a Service

Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking

Platform as a Service

Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking

Software as a Service

Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking

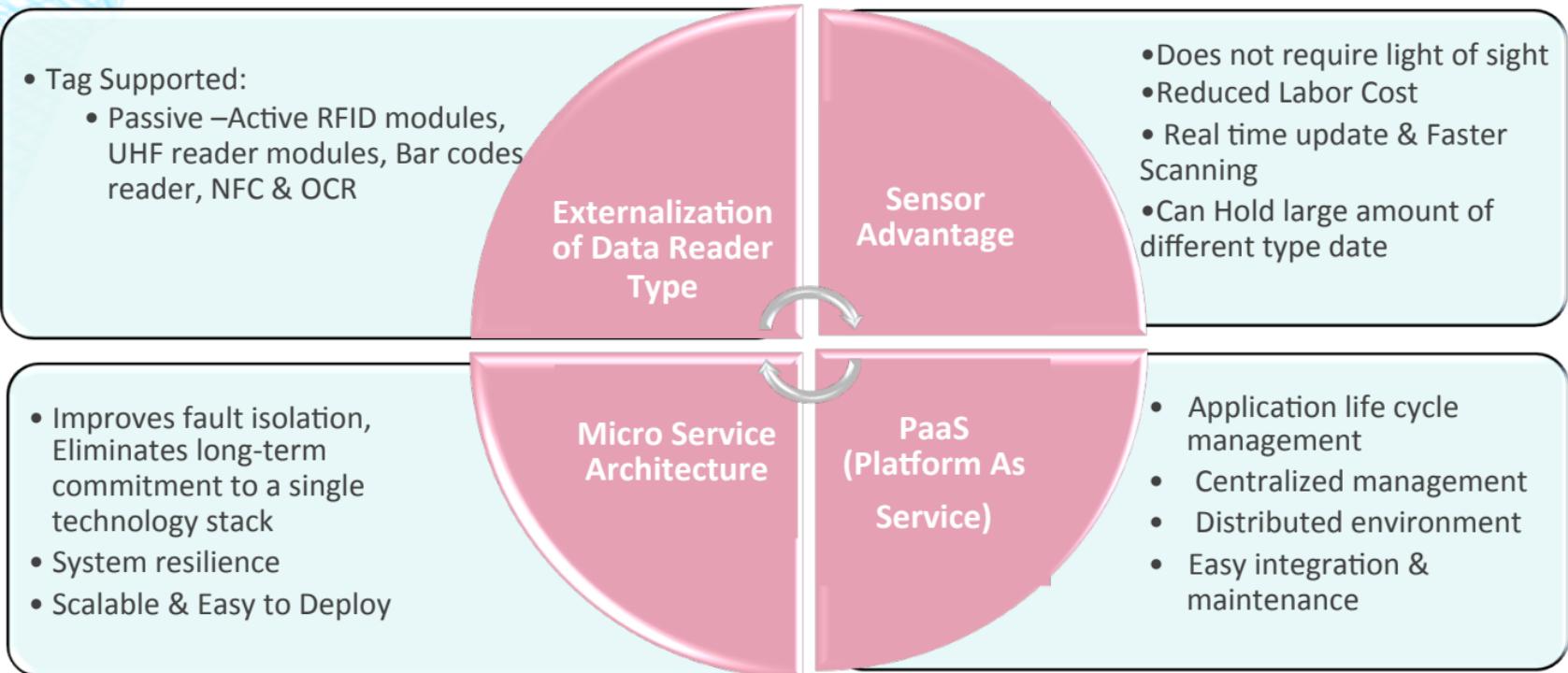
 Client Manages

 Vendor Manages in Cloud

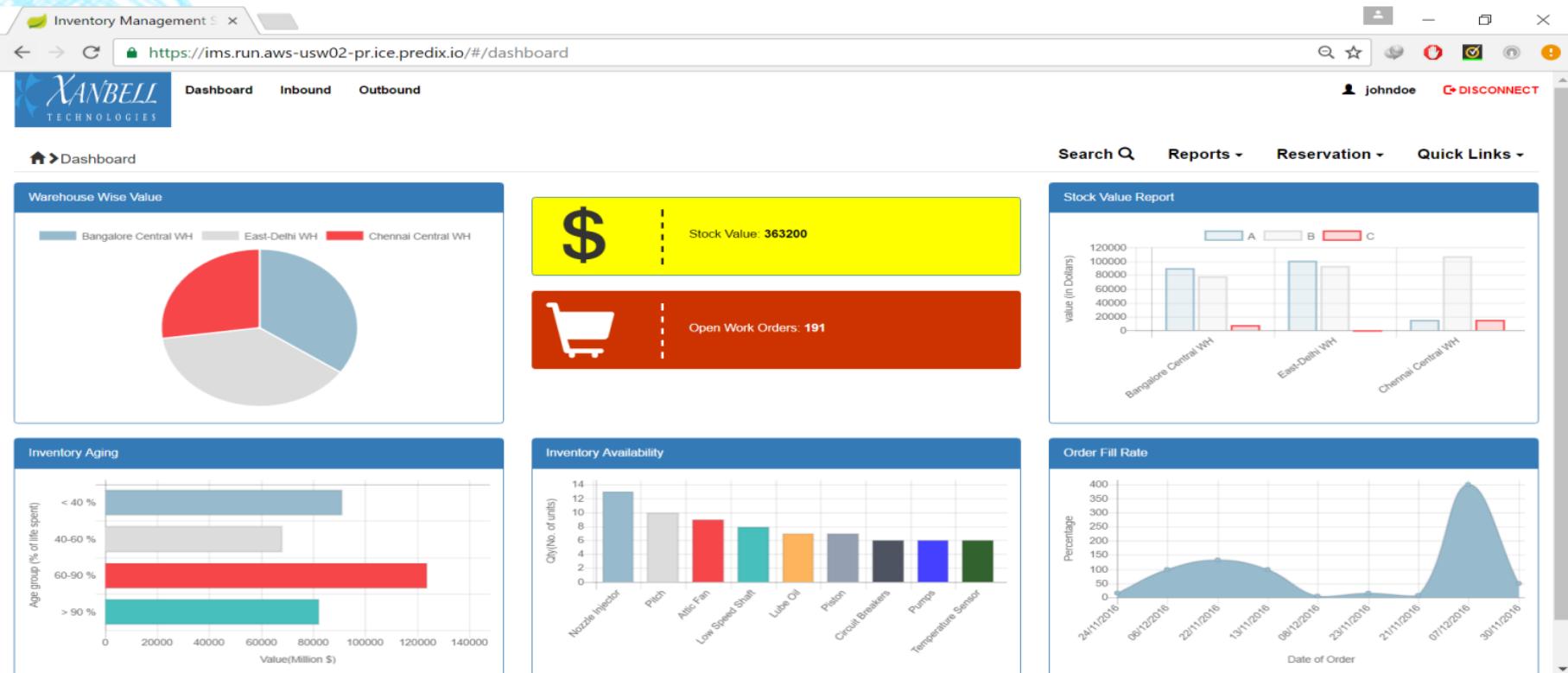
INVENTORY MANAGEMENT - FEATURES

- Inventory optimization & visibility
 - A. Reorder point
 - B. Optimum Order quantity
 - C. Inventory cost
 - D. Safety Stock Alert
- Inventory Reservation
 - A. Build-to-Order (BTO), Make-to-Order (MTO) - this strategy is typical for high-end motor vehicles and aircraft.
 - B. Assemble-to-Order (ATO); Assemble-to-request(ATR) – this approach is typical in product customizing e.g. Turbines
 - C. Reservation Optimization (RO); Reservations are optimized by algorithms based on availability, distance of warehouse from assembly unit, etc.

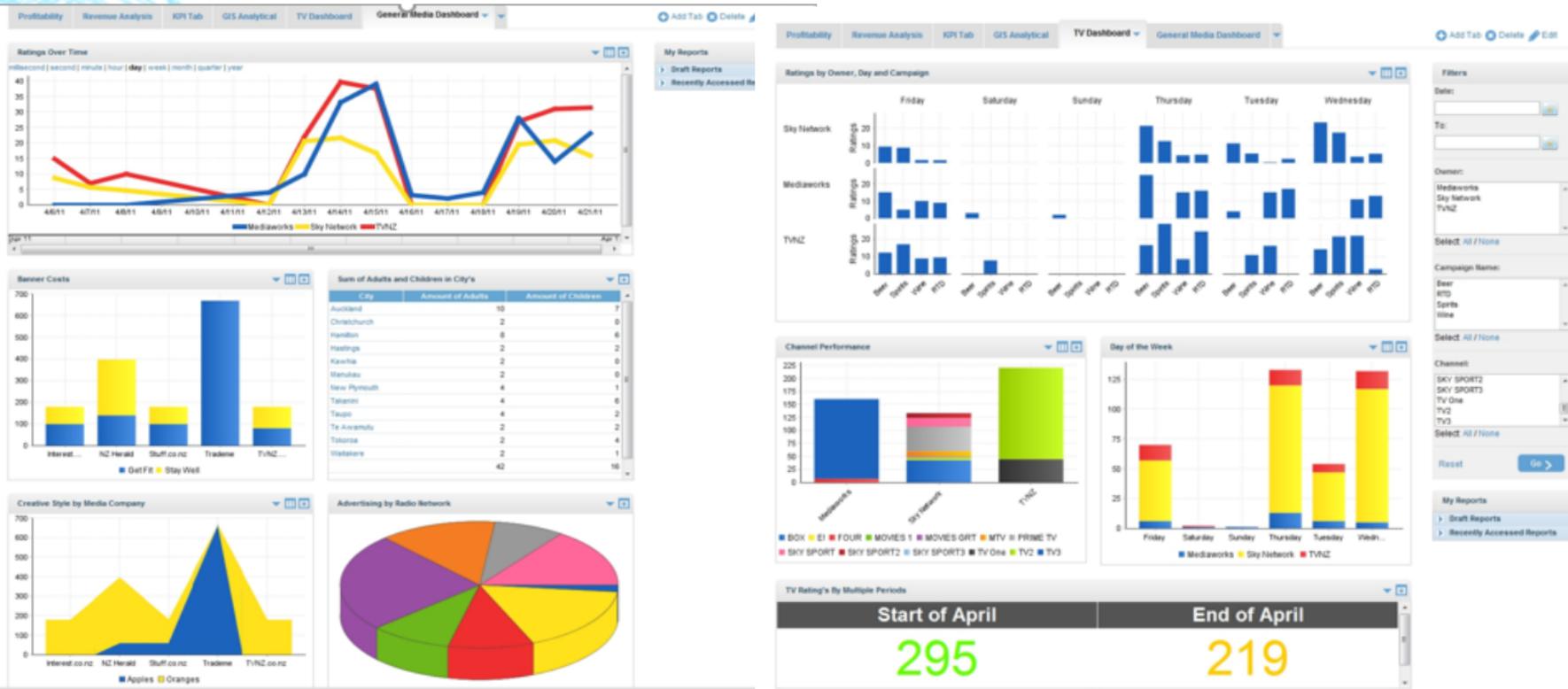
UNIQUE ADVANTAGE OF THE SOLUTION



INVENTORY MANAGEMENT DASHBOARD



INVENTORY MANAGEMENT DASHBOARD



CASE STUDY# 2 - BI REPORTING FOR NZ HOSPITAL

Problem Context:

1. Analyze and report the effectiveness of campaigns through Media
2. Direct data uploads for analysis of Media effectiveness

Products/Platforms:

1. Tomcat 6.x , Yellowfin BI 5.2, Talend Studio 5.x , Sql Server 2008 & Vector wise 2.x



Assignment Highlights:

1. Developed Dashboard and customized BI Reports, that would source data from the data loads directly
2. Separate Dashboards for Summarized data and Media specific data
3. Ability to compare the metrics for multiple date ranges
4. Ability to view reports and dashboards over the browser, and to export to pdf, doc and other common formats

CASE STUDY# 3 - MIGRATION FOR BI APPLICATION

Problem Context:

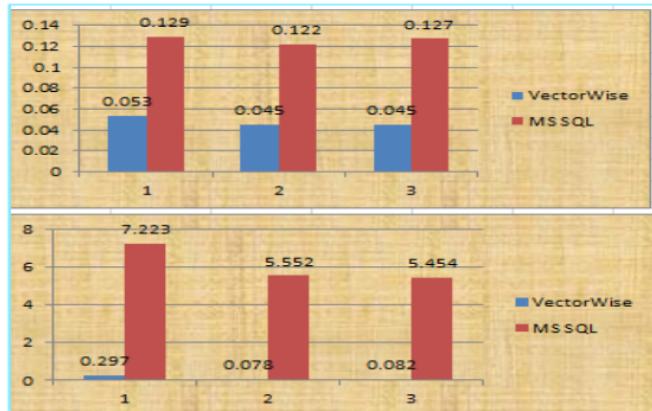
1. Media Metrics BI Reporting Application used MS SQL Server database and Yellow Fin BI tool.
2. Vectorwise (VW) is a new generation fast database for Analytics Applications from Actian/Ingres corporation.
3. Migrate Schema, Data and SQL code from MS SQL to Vectorwise (VW) and use Yellow Fin BI tool to connect to Vectorwise database.

Assignment Highlights:

1. Migrated Yellow Fin Reports and Yellow Fin Meta Data from MS SQL to Vector wise DB.
2. Achieved 2 to 5 fold performance improvements in the reports delivered to Media Metrics Application users.

Products/Platforms:

1. Vector wise 2.x, Talend Studio 5.x , Yellowfin BI 5.2 , Tomcat 6.x, MS Sql Server 2008.



thank you!

Additional Queries can be directed to:



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