Industry Collaboration Solutions for Utilities and Energy

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Collaboration Solutions Architect Portal Technical Leader IBM Software CEE

Join the conversation



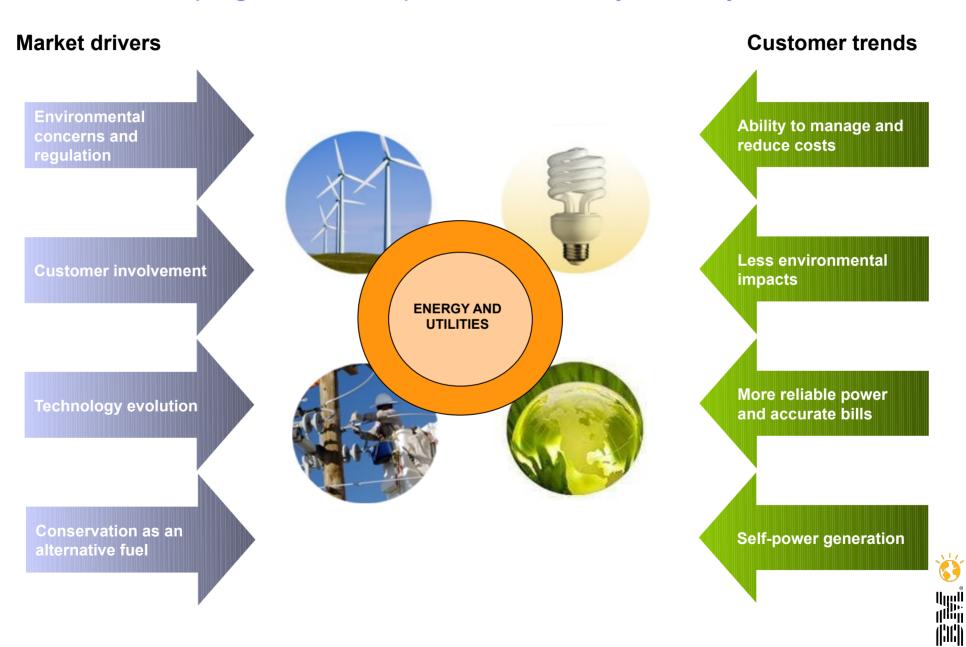
@Lotus_CEE
#getsocial11

Get Social. Do Business.





Market forces shaping customer operations in utility industry



jjanjj

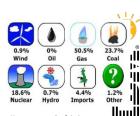


Society and customer drivers

- Push to reduce carbon emissions and hit climate change targets.
 - Increased use of intermittent, distributed energy supplies
 - EU bill cut CO2 emissions by 60% of 1990 levels by 2050
 - USA proposals cut CO2 emissions by 80% of 1990 levels by 2050, and return to 1990 levels by 2020
- Customers have little idea their energy usage/cost breakdowns.
 - Only receive monthly consumption figure and amount due
 - Desire to reduce consumption → Save Money
 - Find tariff best suited to their consumption profile
 - Incentives/ discounts
 - Changing usage times
 - Some driven by green agenda.
 - Ability to view/understand impact on the environment
 - Improved/personalized experience
 - Flexibility to manage and pay for consumption (greater choice of billing frequency)
 - Personalized advice/recommendations
 - Personalized notifications/alarms of consumption or events







Supplier drivers



- Reducing the cost to serve through:
 - -Lower staffing in call centers (higher bill accuracy, reduced call volumes, etc)
 - -Reduced opportunity for energy theft
 - -Greater ability to manage and control debt
 - -Lower generation and infrastructure costs
- Better balance supply and demand
 - -Avoid brownouts/blackouts and delay need for new power stations
- Reducing environmental impact
 - –Meeting government/ global targets for carbon emissions
- Leverage increased volume of customer information
 - -Richer view of customer profitability
 - Define and target appropriate campaigns and incentives that engage and drive a change in customer behavior
 - -Greater understanding of the customer driving smart recommendations and cross sell opportunities
- Market differentiation [competitive markets]
 - New value added services for customers opening up new revenue streams "services beyond the meter"
 - -Improved transparency and customer satisfaction driving retention

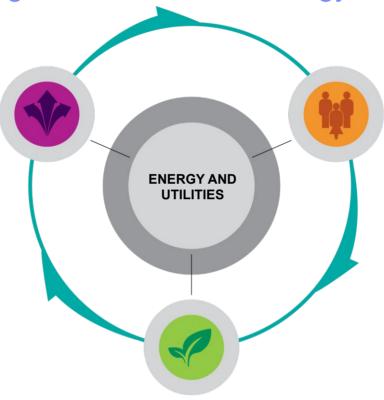




To deliver services more responsibly and more efficiently, energy and utilities organizations are working toward a smarter energy value chain.

TRANSFORMING THE UTILITY NETWORK

Transforming the utility network from a rigid analog system to a dynamic and automated energy delivery system.



EMPOWERING THE CONSUMER

Empowering consumers by providing them with near real-time, detailed information about their energy usage.

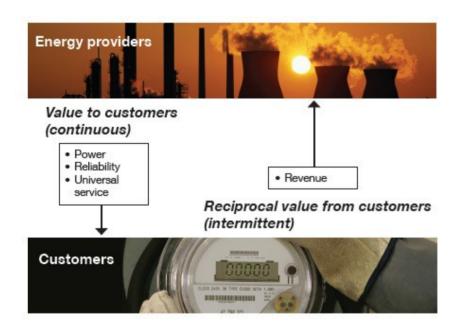
ENSURING CLEANER ENERGY SUPPLY

Incorporating renewable energy and electric vehicles into the power grid and meeting stringent greenhouse gas emissions targets while maintaining reliable, cost-effective power supply



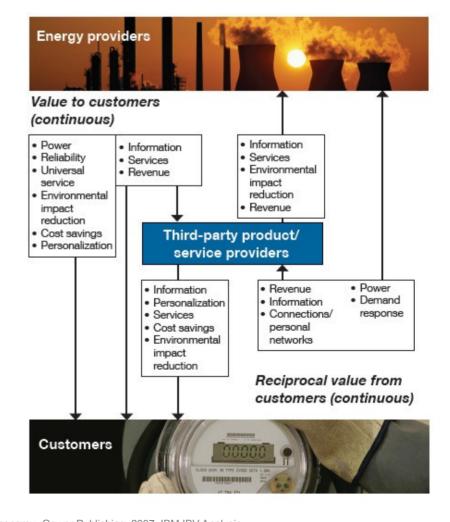
One of the most important shifts brought on by the E&U transition will be to the value model for the industry

Traditional Industry Value Model



At the same time customers are becoming more demanding, they actually have much more to offer in reciprocal value to energy and other product/service providers.

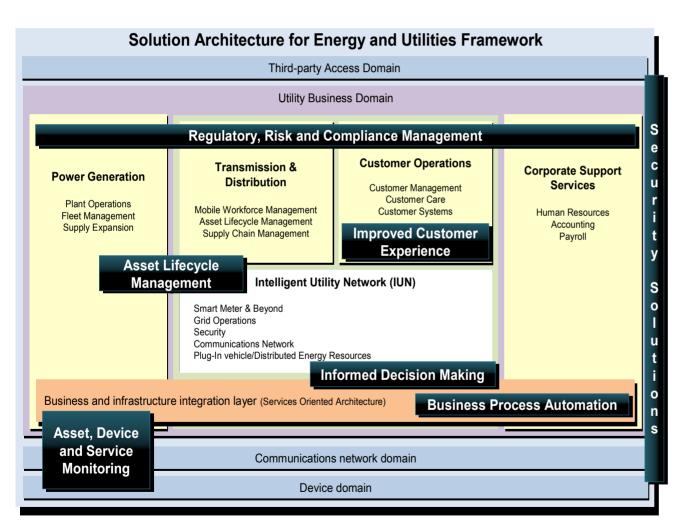
Emerging Industry Value Model



Jansen, W., W. Steenbakkers, and H. Jagers, New Business Models for the Knowledge Economy, Gower Publishing, 2007; IBM IBV Analysis.



The SAFE framework enables integration of information and processes across the utility company



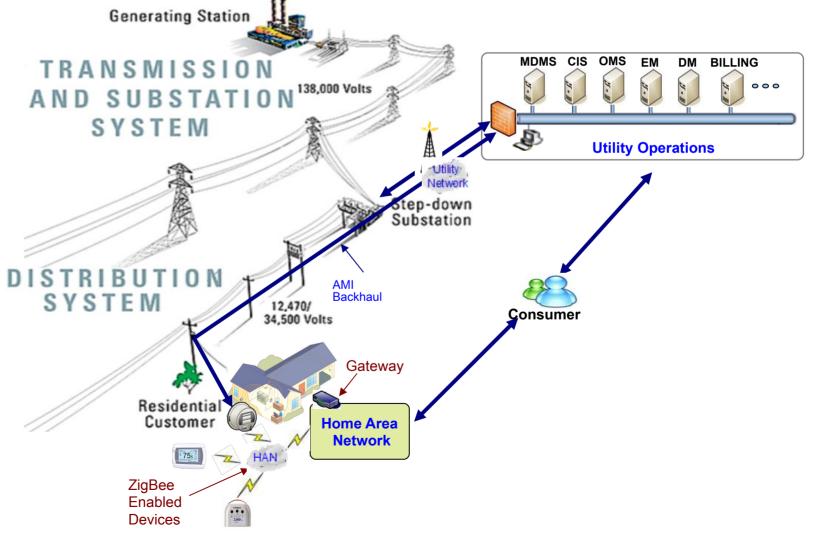
- Provide solution offerings based on industry assets and best practices that enable agile and efficient operations.
- Provide a framework for transformation that creates flexibility and accelerates the deployment and integration of multiple energy & utilities solutions.
- Provide supporting infrastructure services for a robust, scalable production environment.





Utility Operations and Home Area Network Solution High Level View

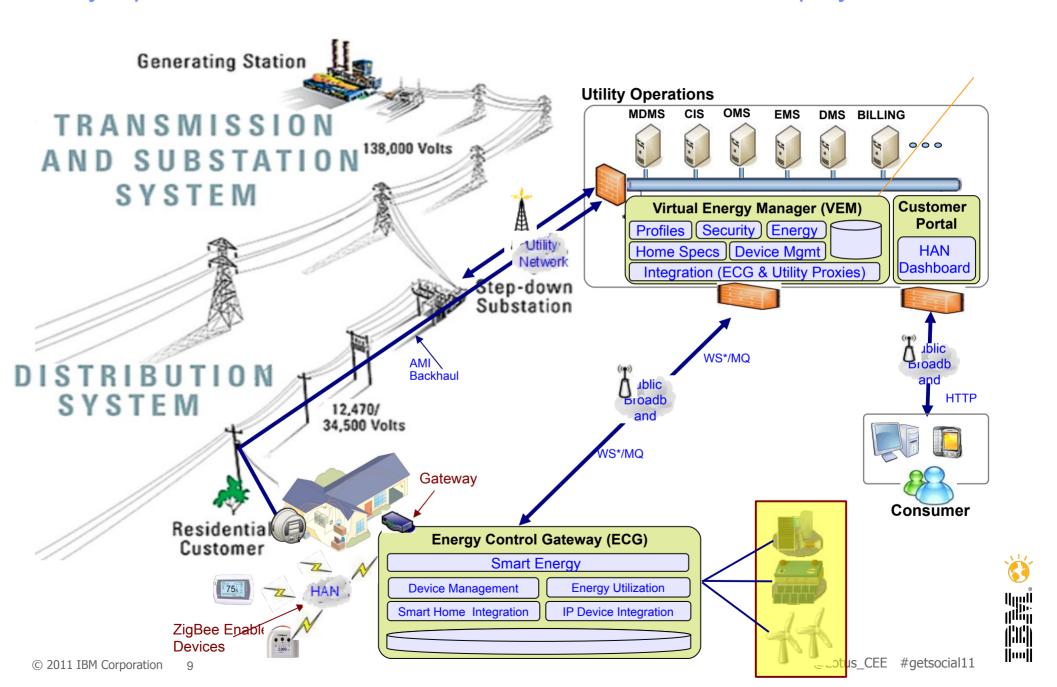
- Improve the customer experience through use of home area network + consumer portal.
 - Provide finer grained information access and control
 - Allow costumer to understand and manage their consumption







Utility Operations and Home Area Network Solution and Deployment







Smart house display and Smart energy (few examples)



Review of consumption



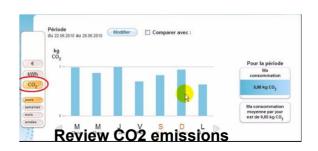
Actual vs. forecast comsumption



Appliance breakdown and peak vs. off peak consumption



Alarm setting



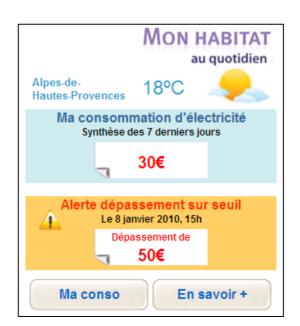


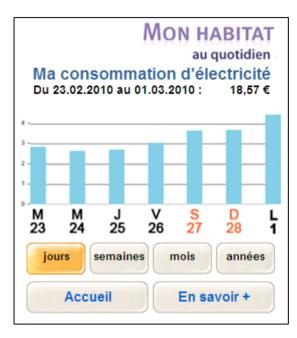


Mobile Display: Monitoring and alerts















Consumer Energy Management & Control

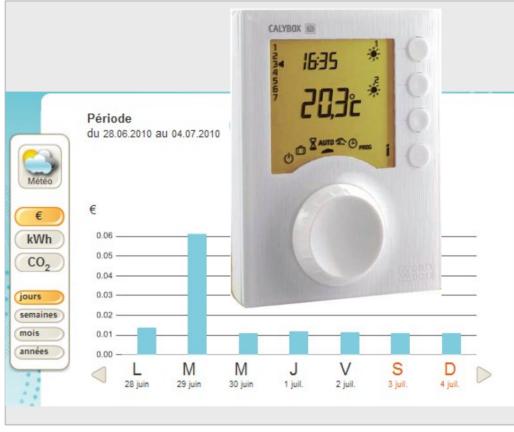
Solution Asset Definition

Brief Description In addition to Power consumption, CO2 emissions and Energy cost Tracking (actual versus estimates or historical Data), this solution demonstrates Demand Side Management based on an Energy Service Platform.

This innovative solution was designed & built by both Edelia, a subsidiary of EDF, and IBM in partnership with Sagem Communications.

Business Value

- Demonstrate the benefits of Energy Service Platform to empower the Consumer and participate to Demand Side Management.
- Illustrate emerging Business Model in E&U Industry.



Integrated Technology

IBM Components

- Websphere Portal
- IBM Maximo EAM
- WS Process Server / ESB

■DB/2

Partner(s) Component(s)

- PI from OSISoft
- Energy Gateway from SagemCom

Smarter Planet

Proof points

- Energy Management
- Demand Side Management

Asset User (Client/internal)

- La Gaude ISC
- Accessible remotely under conditions

Center

La Gaude E&U Sol. Center

Repository

iRAM link

Contact Point

Jean-Francois Mermet/France/IBM

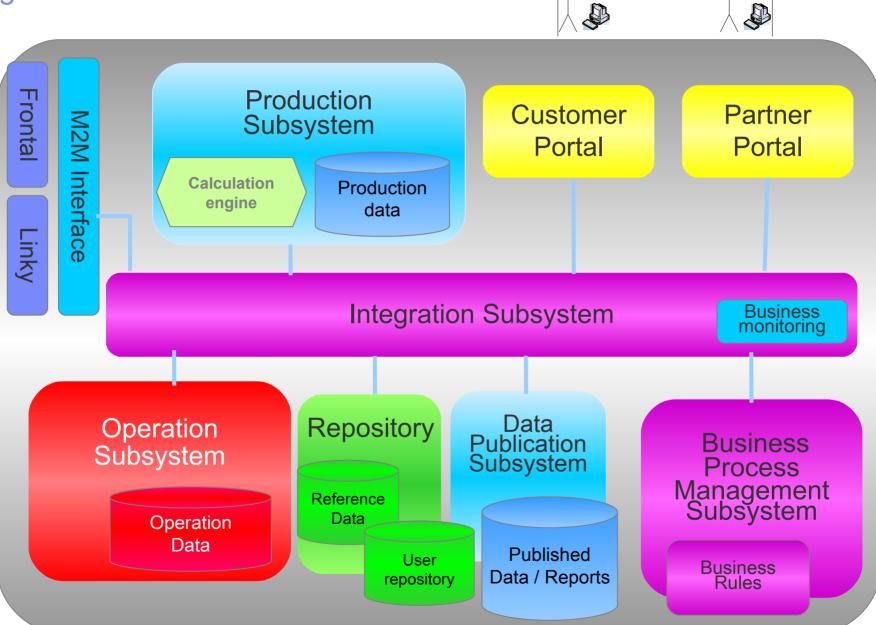
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EndUser

Load Shedding

Logical architecture of IBM Solution





Logical architecture

1. Portal

- End user (consumer)
- Partner portal (load control operator)

2. Operations subsystem

- Asset and Inventory management
- Partners (installers, ...)
- Work management
- Billing

3. Repositories

- User information
- External data (Weather, Region, ...)

4. M2M interface

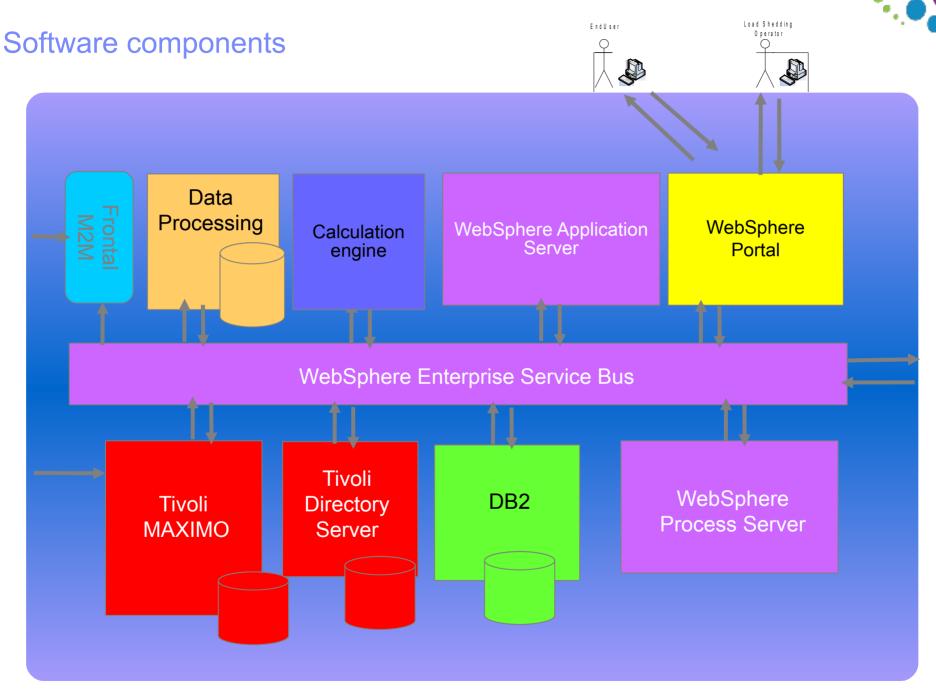
Energy box, Linky (AMM), ...



5. Production Subsystem

- Data Historian
- Calculation Engine (rating, estimating,...)
- Data processing
- Alarms and alerts
- 6. Business process management (business rules)
- 7. Business monitoring
- 8. Integration subsystem (ESB)









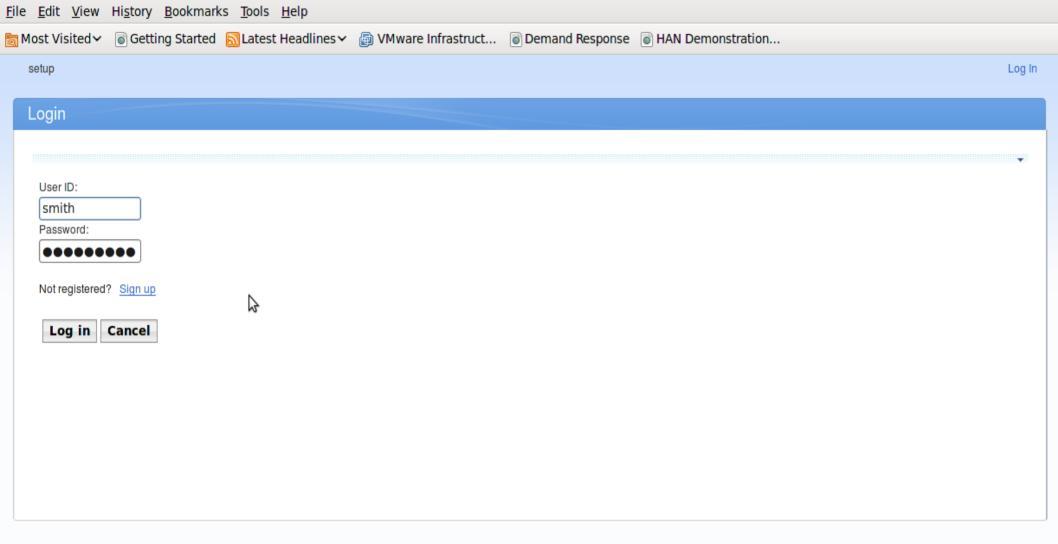




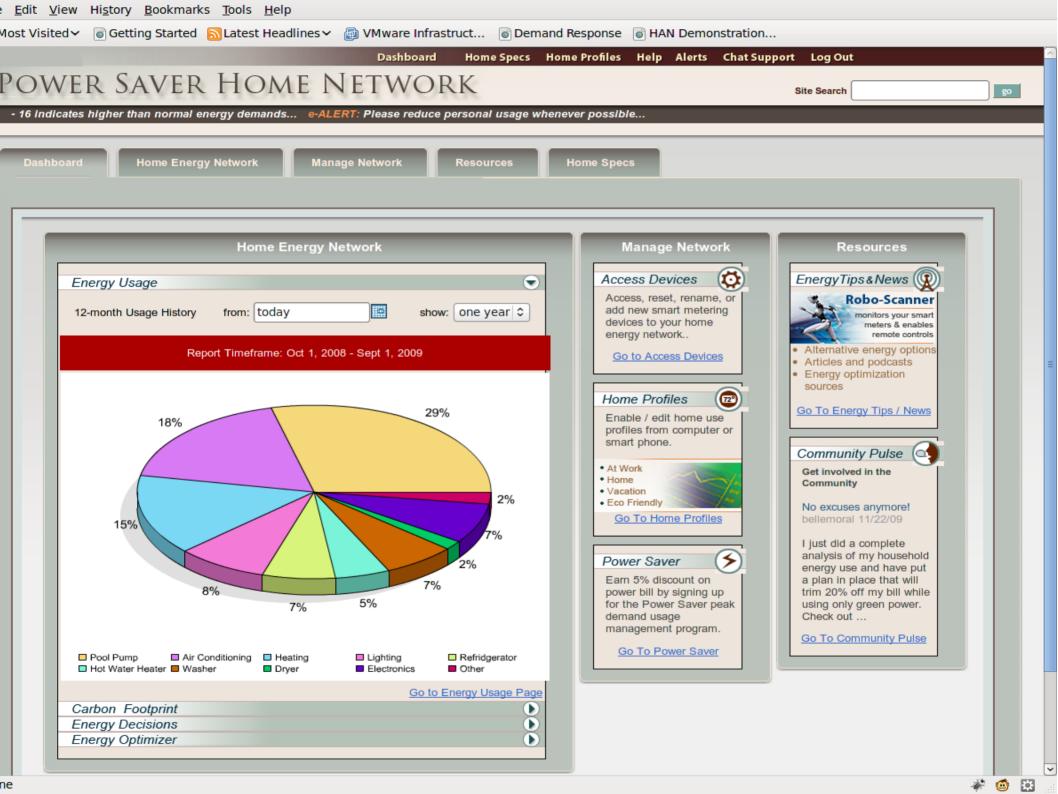


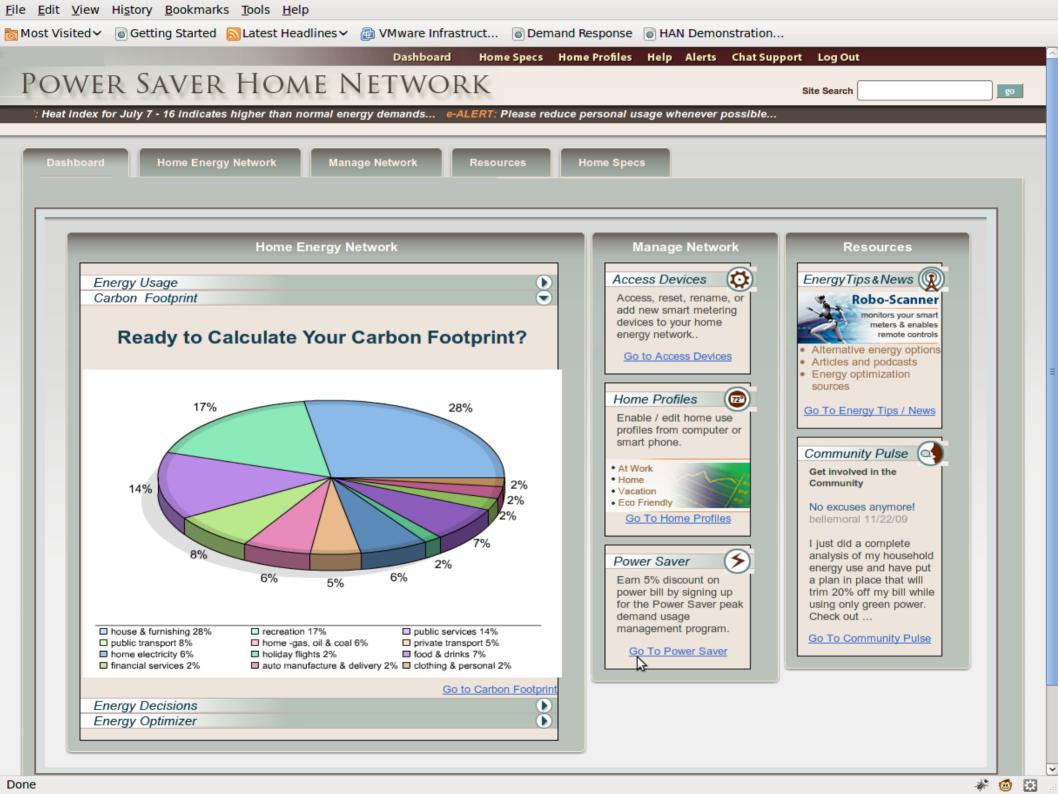
- Combined Partner hardware / IBM software solution.
- Decoupled components, extensible Web 2.0
 - Phased deployment start with basic usage and rate analysis, easily add discussion forums, blogs, and other
 Web 2.0 capabilities.
- Alerts/Notifications.
 - Financial, service and usage communications alerts drive customer behavior
 - Ex: Nearing usage threshold, Bill available, payment reminders via email, SMS, Web Alert. Service notifications via same plus tools like Facebook and Twitter.
- Collaboration, communities, and social networking.
 - Increase understanding of consumption relative to others
 - Compare to houses with similar sizes and demographics
 - Provide peer to peer and community based behavior change
 - FAQs (e.g. what is micro-generation)
 - Wikis and forums to communicate ways to improve house efficiency and help others.
- Best tools on the market (Gartner #1 for 8 yrs running WebSphere Portal)
- Accelerators available to support mobility Out-Of-Box (Mobile Portal Accelerator)
 - 7000+ devices ..including all major smartphones: (sourcecomScore)
 - Blackberry (41%), iPhone (24%), Android (13%+), Windows (13%), etc...



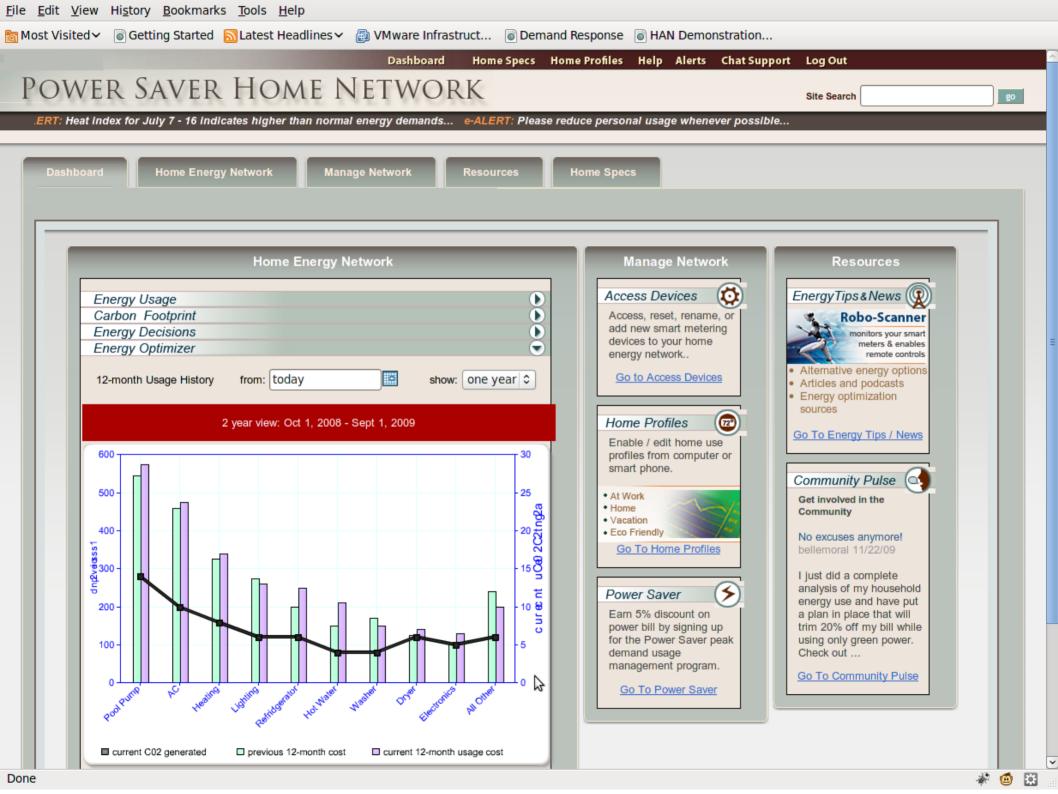


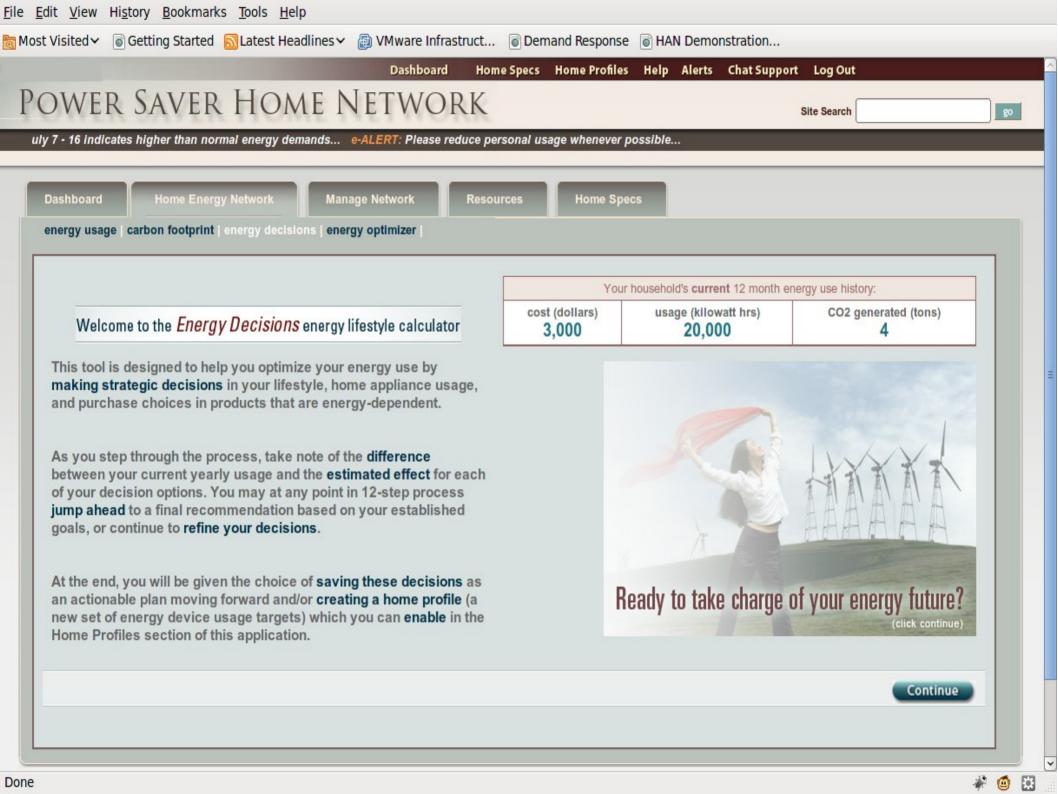


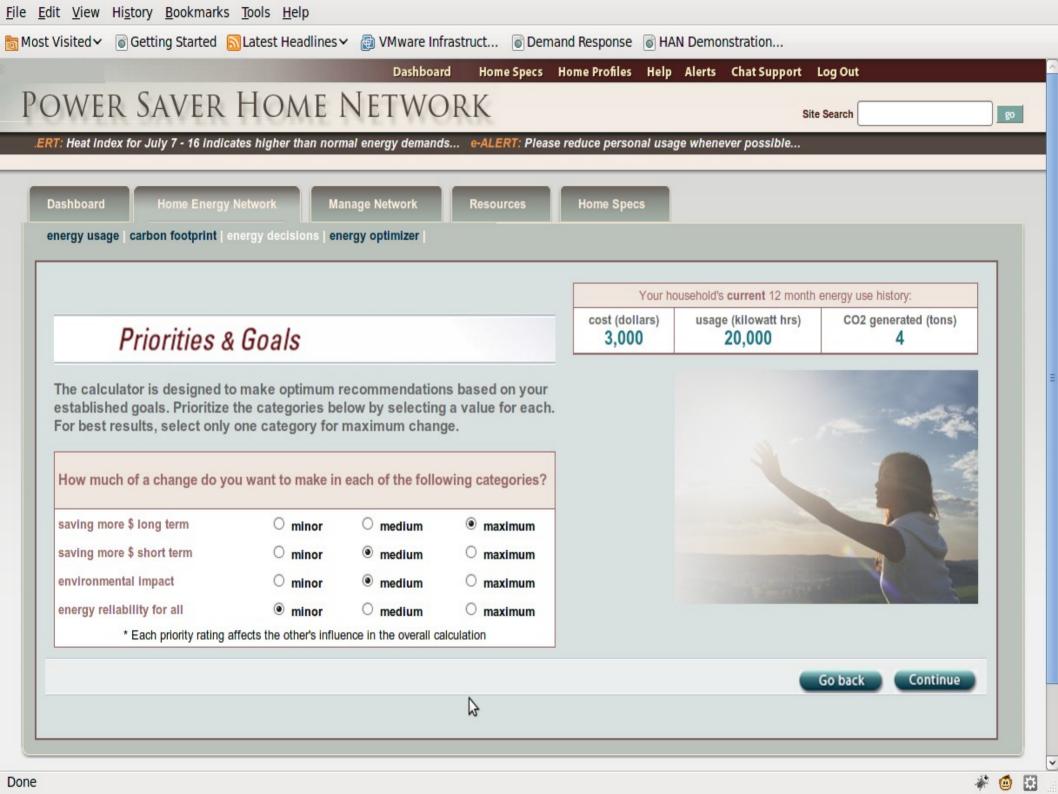


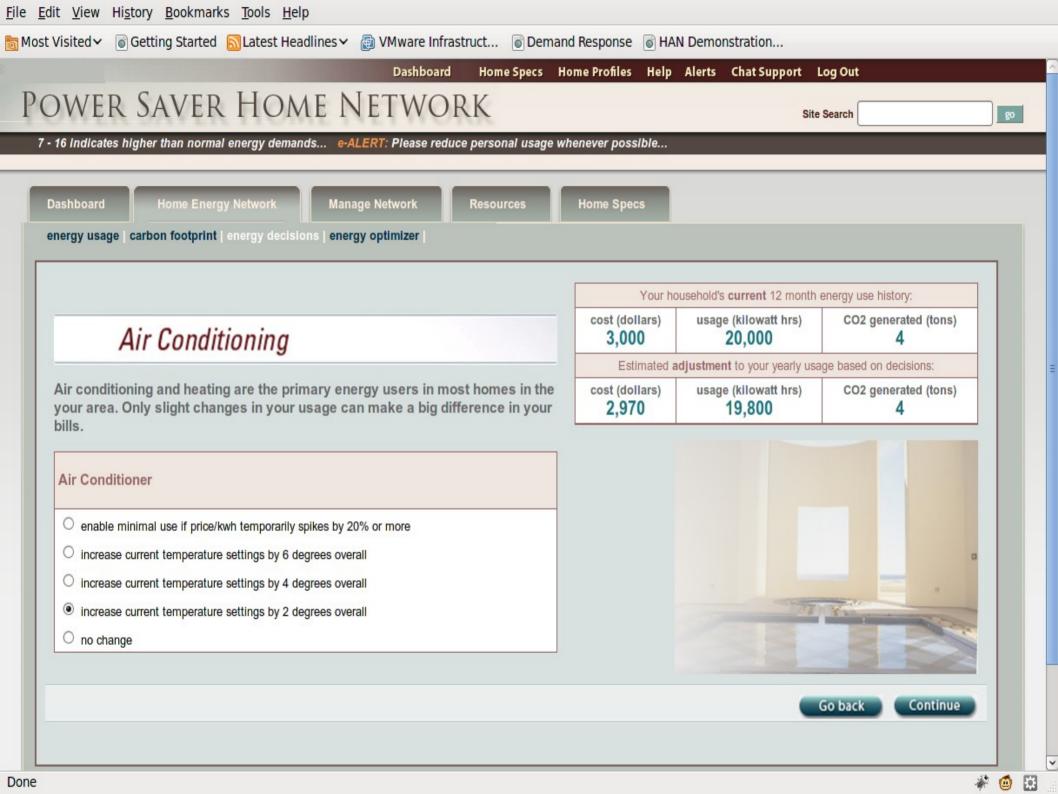


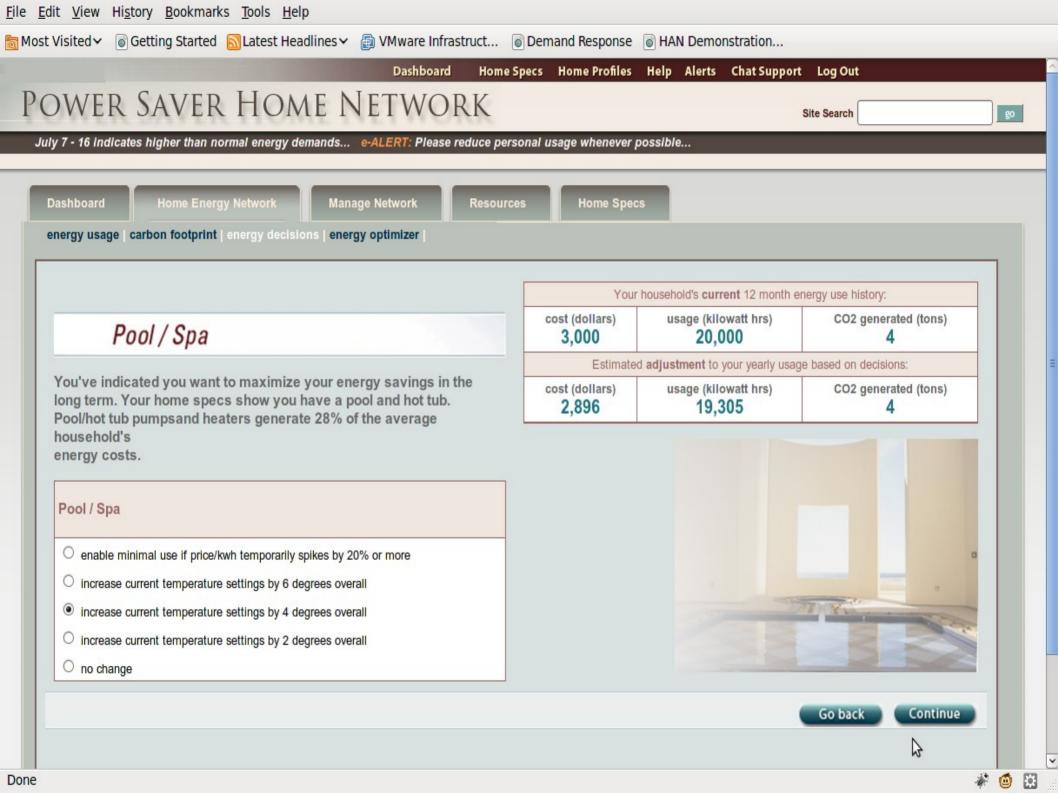


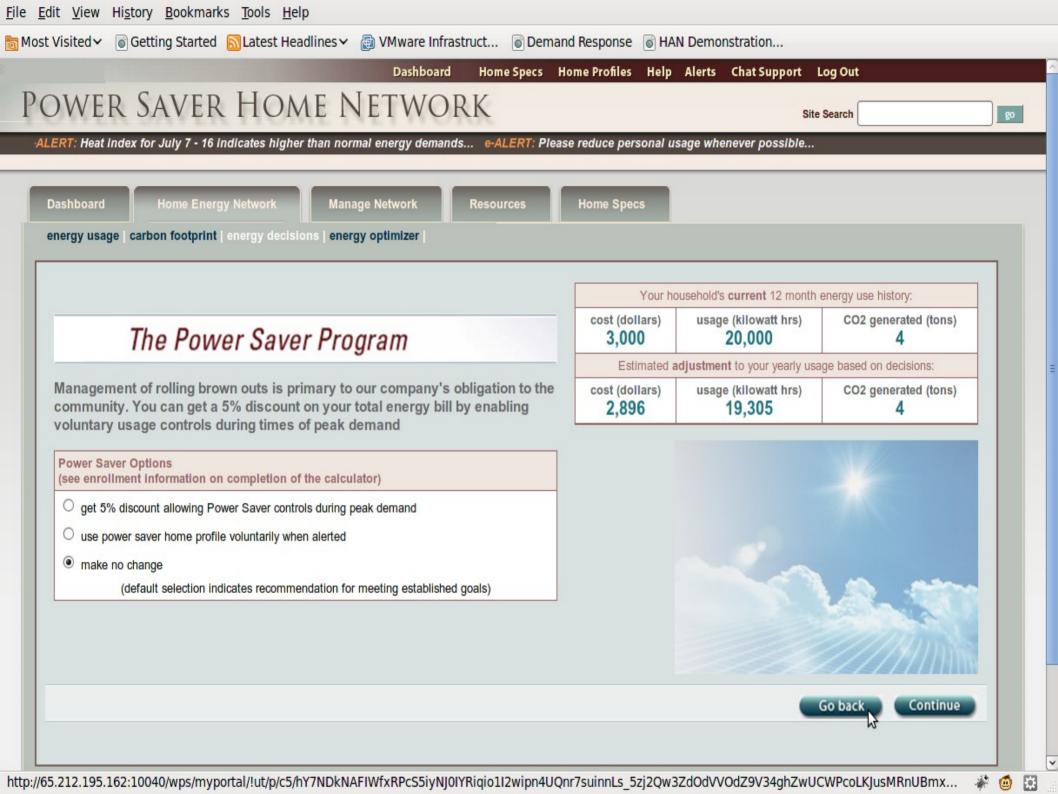


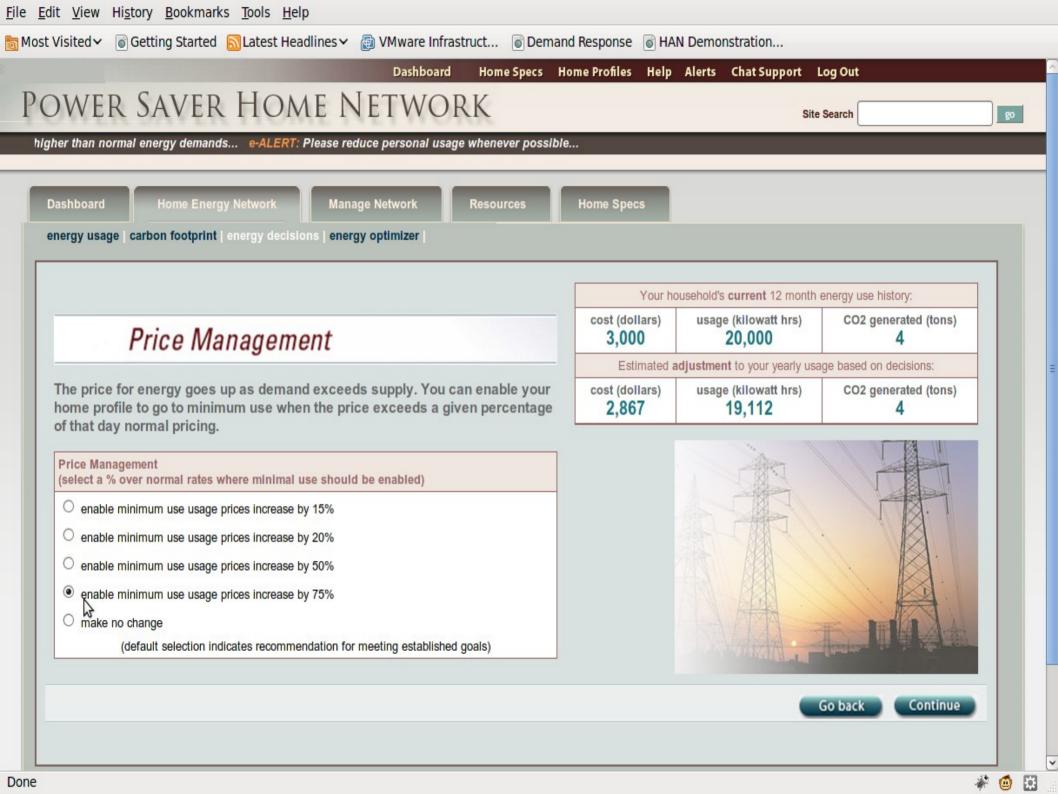


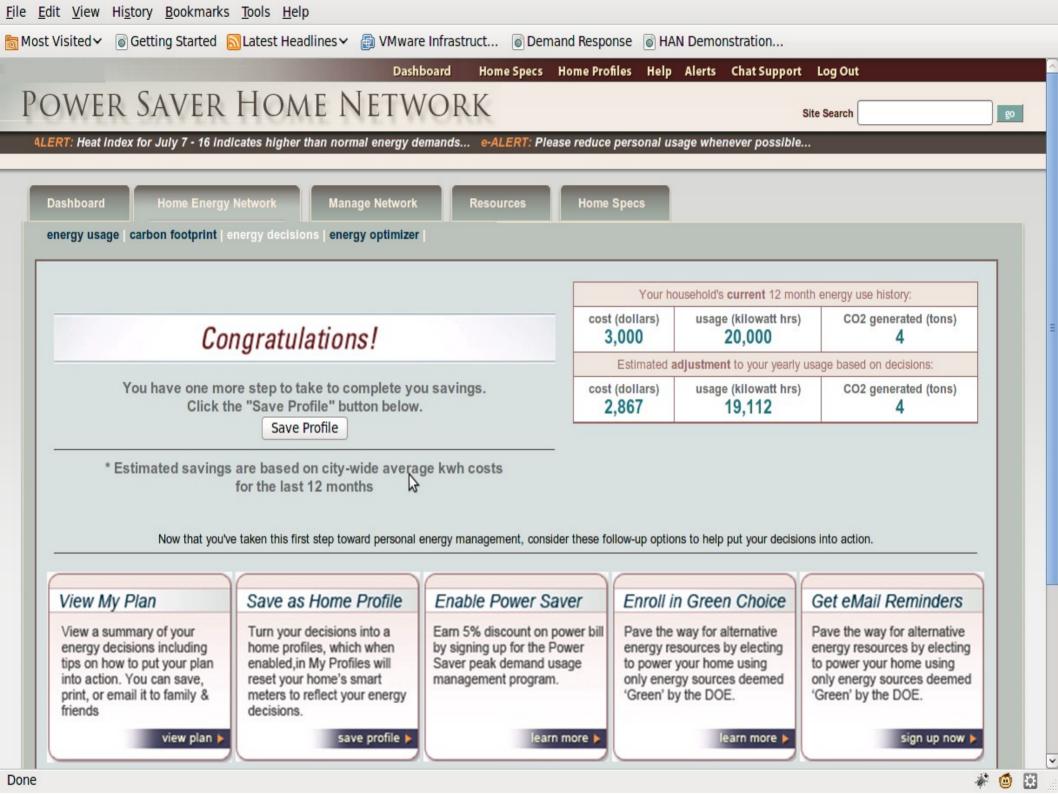


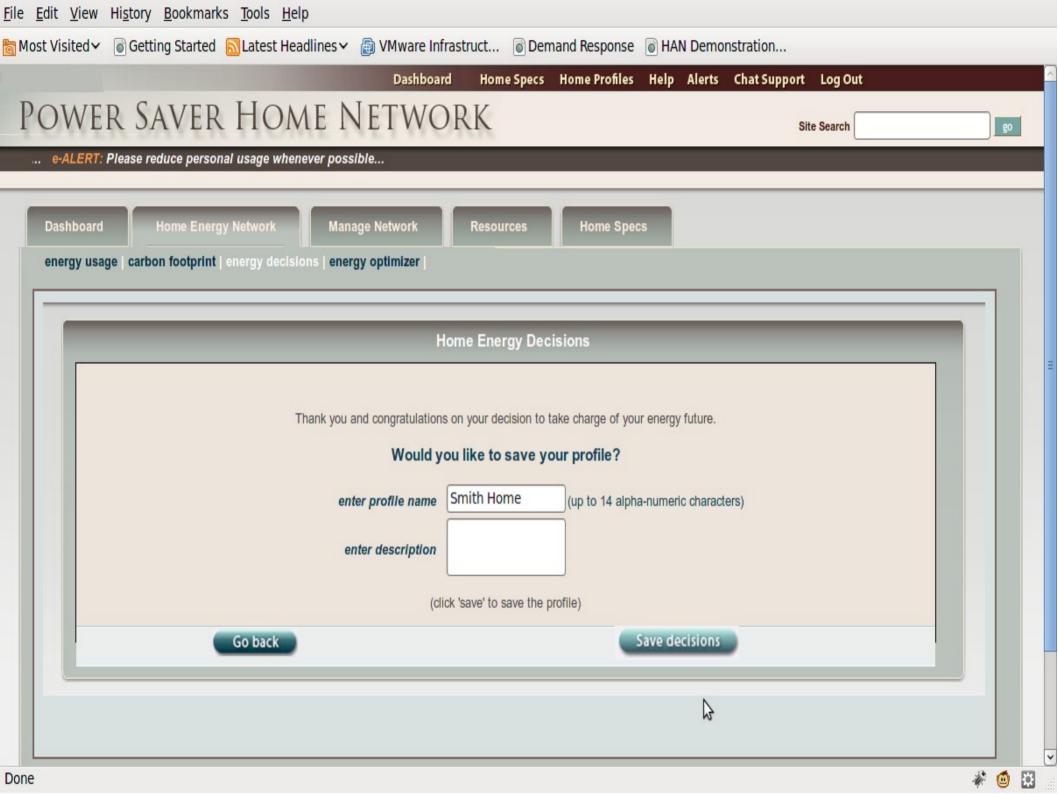


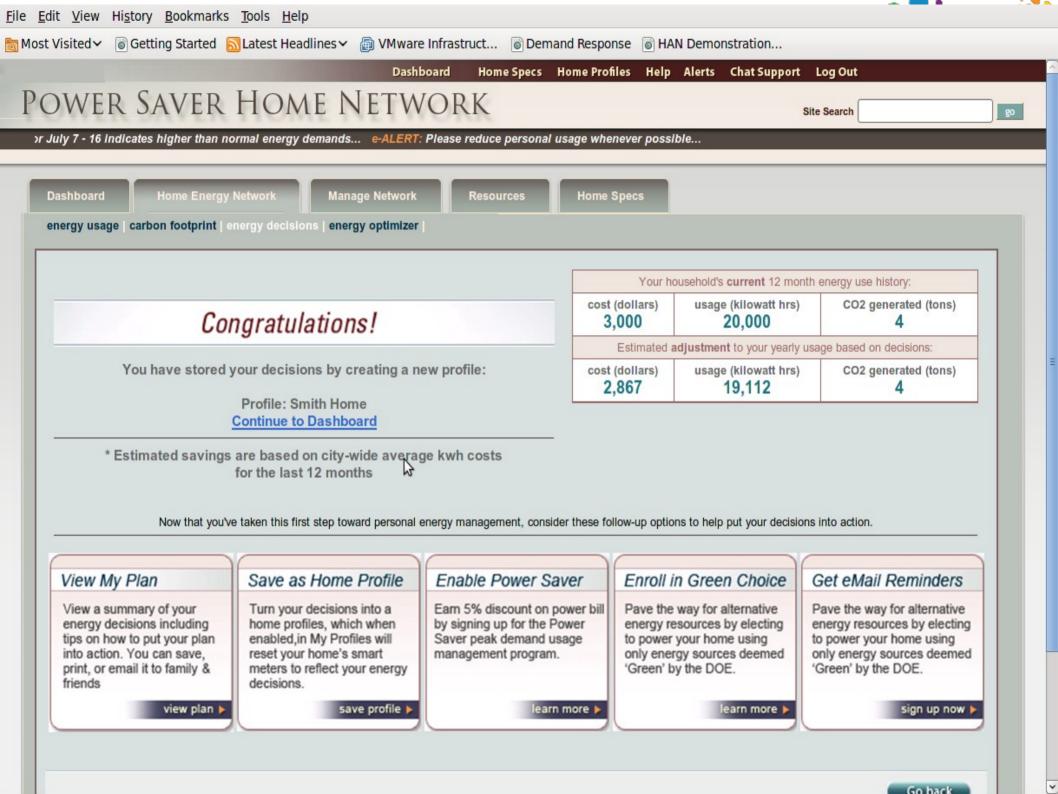


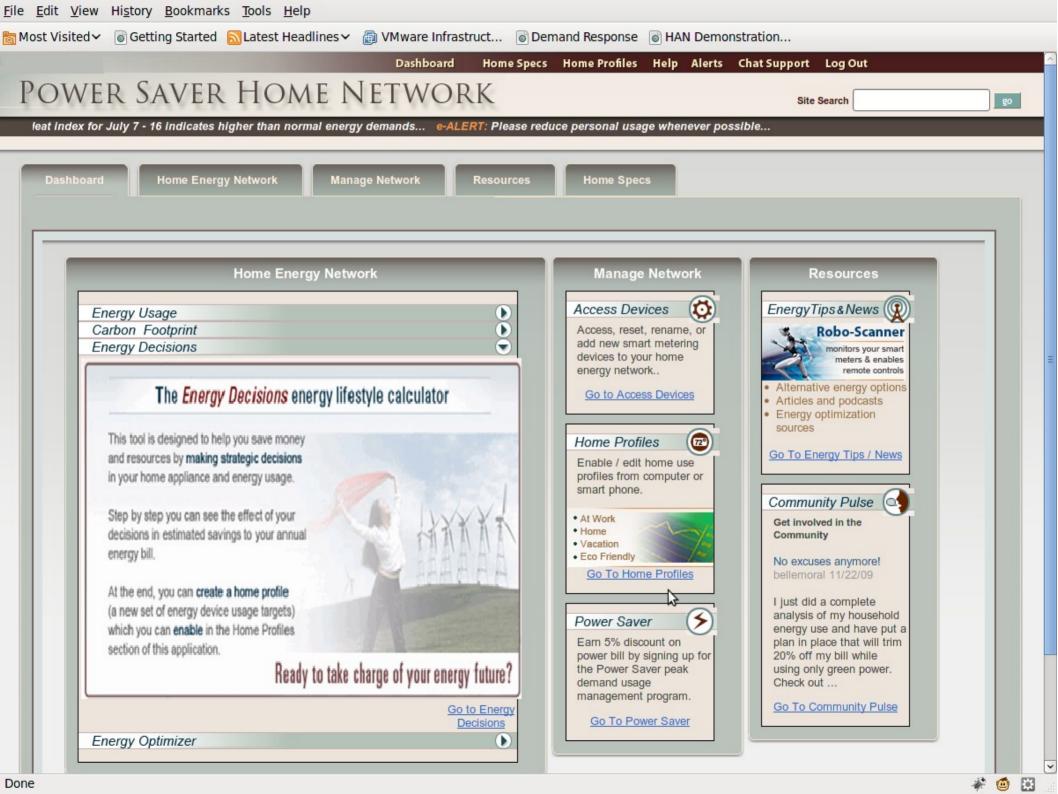


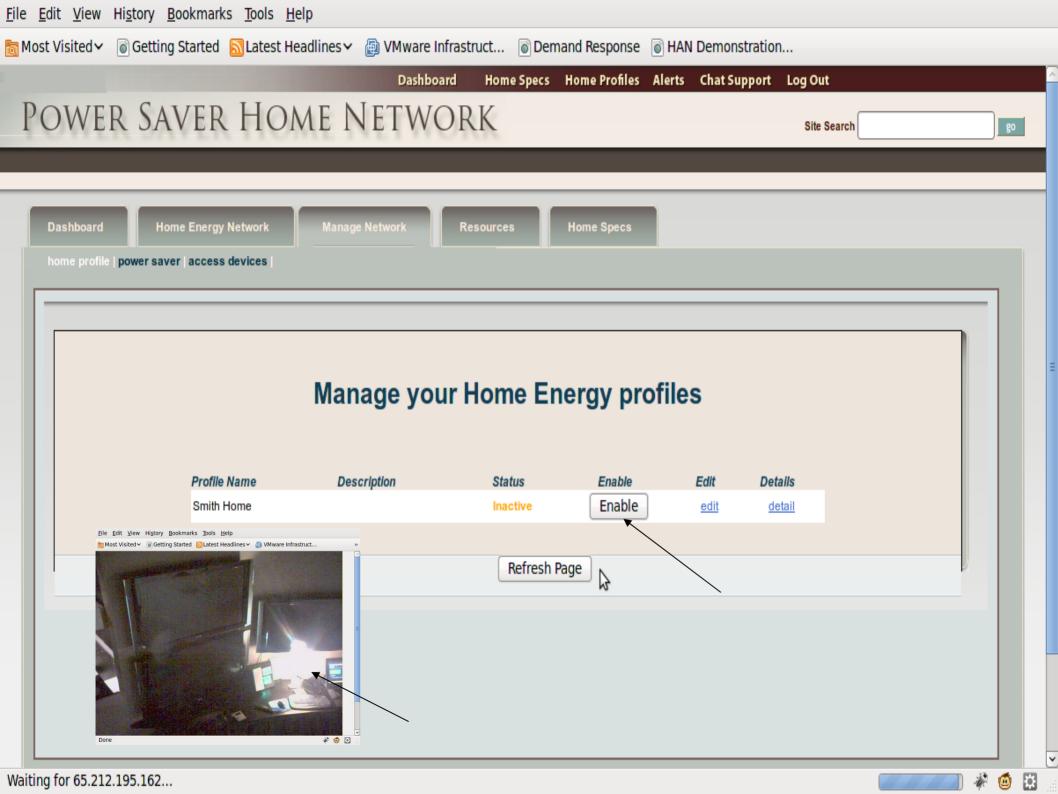


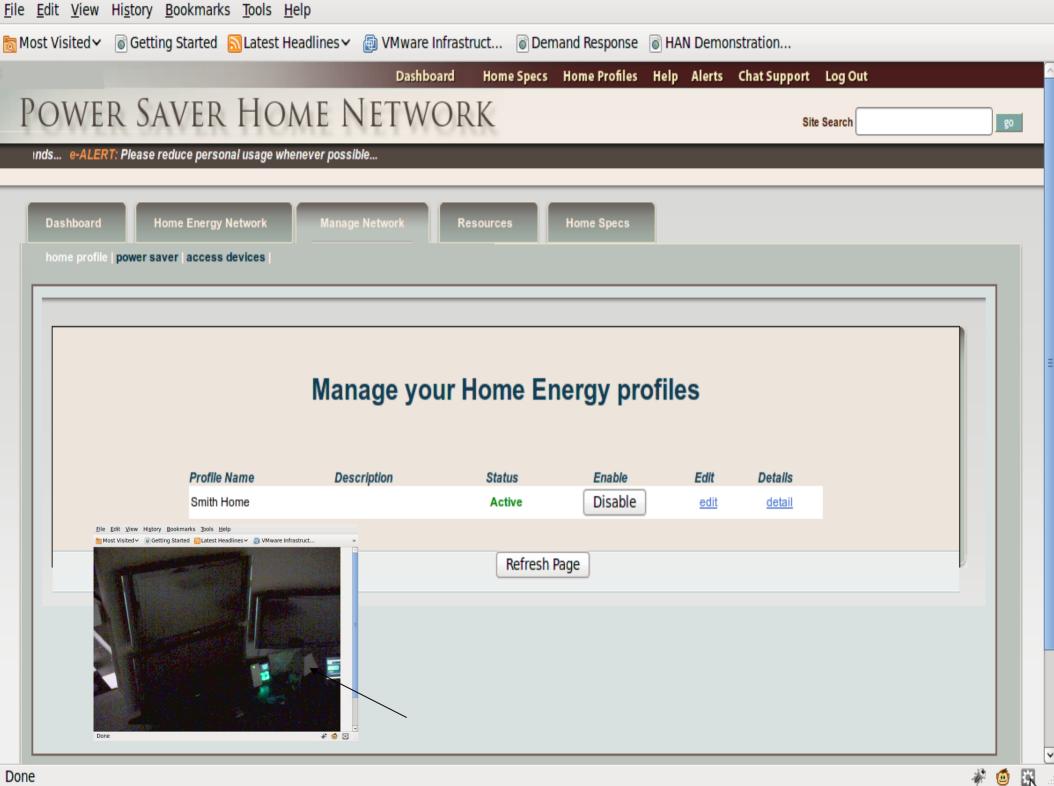




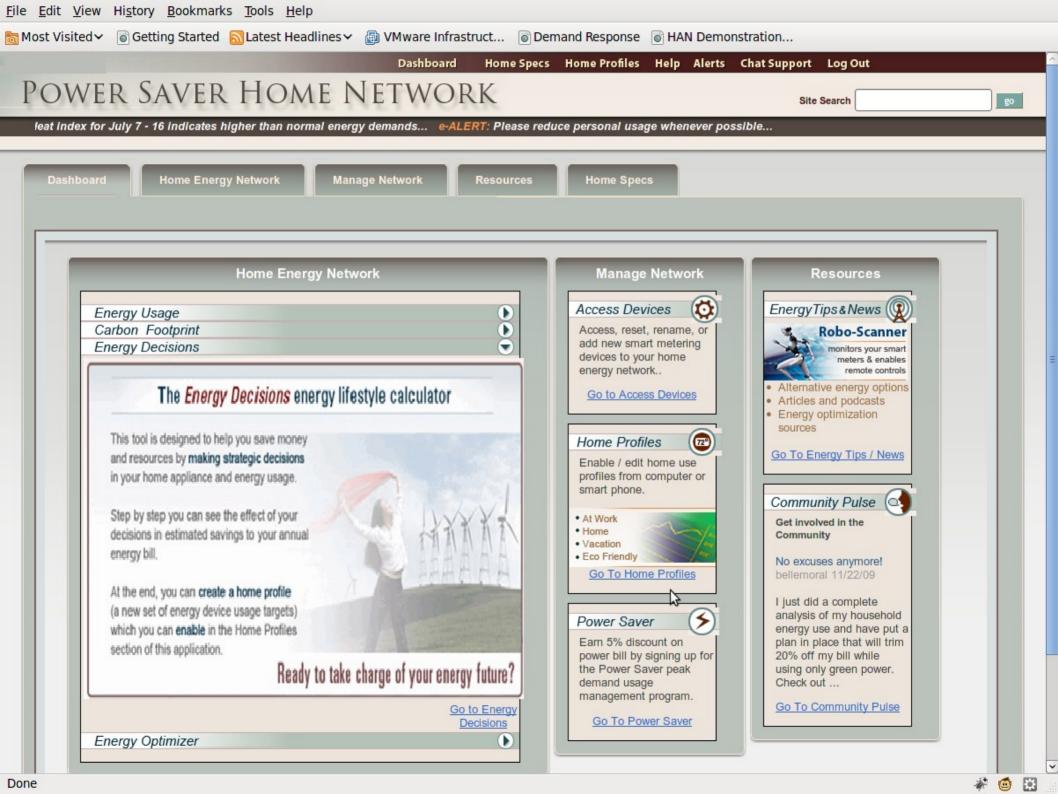


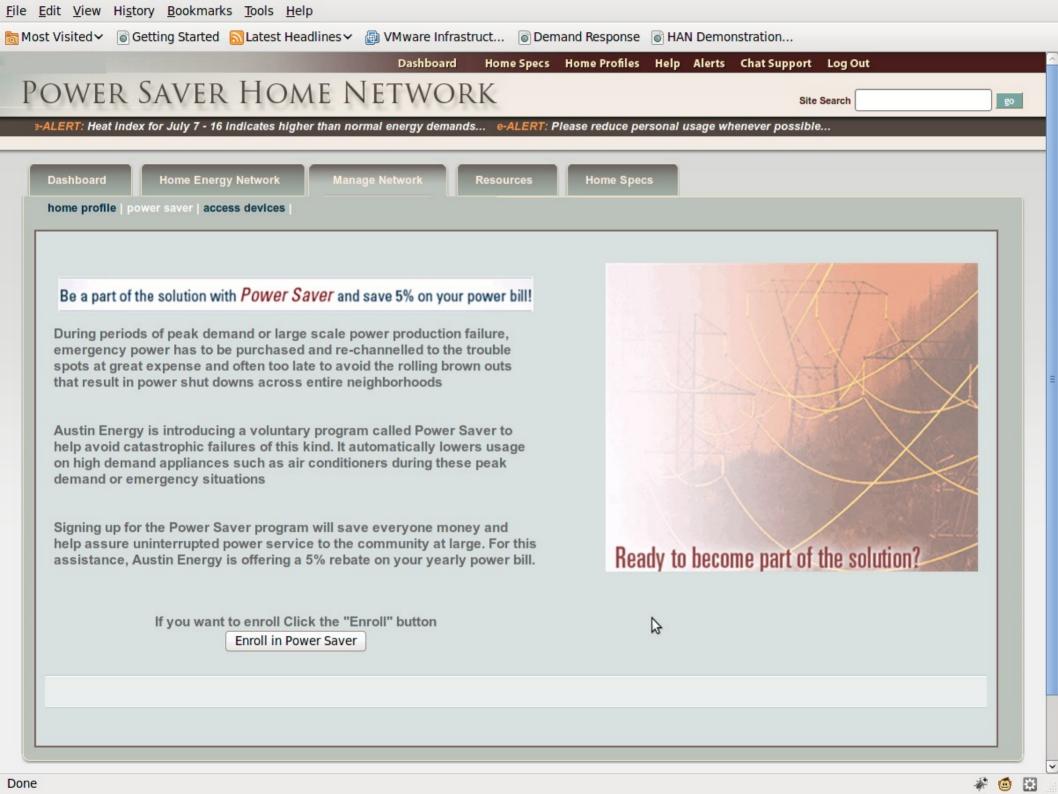


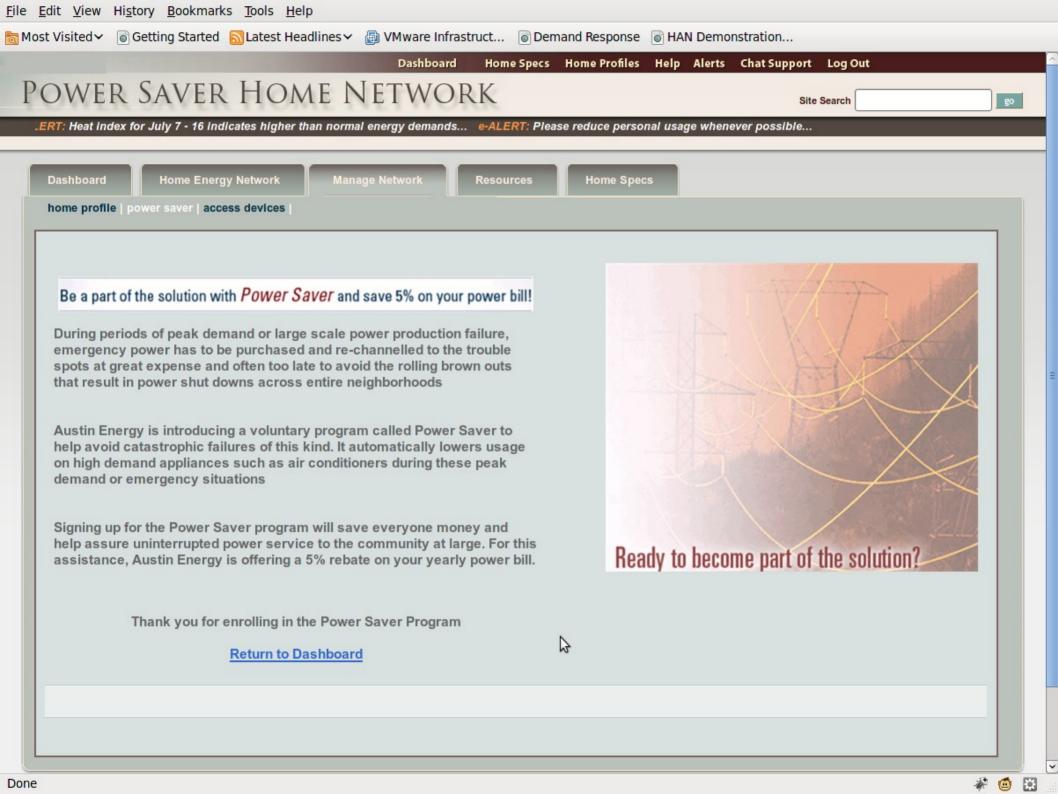


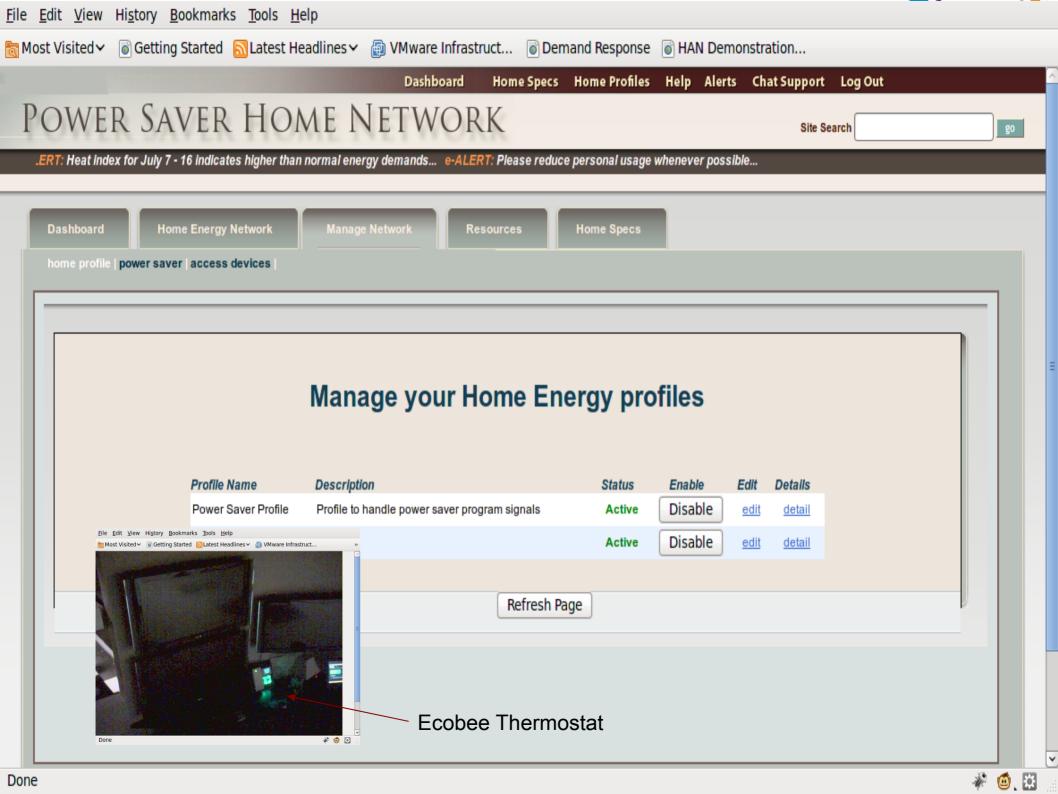


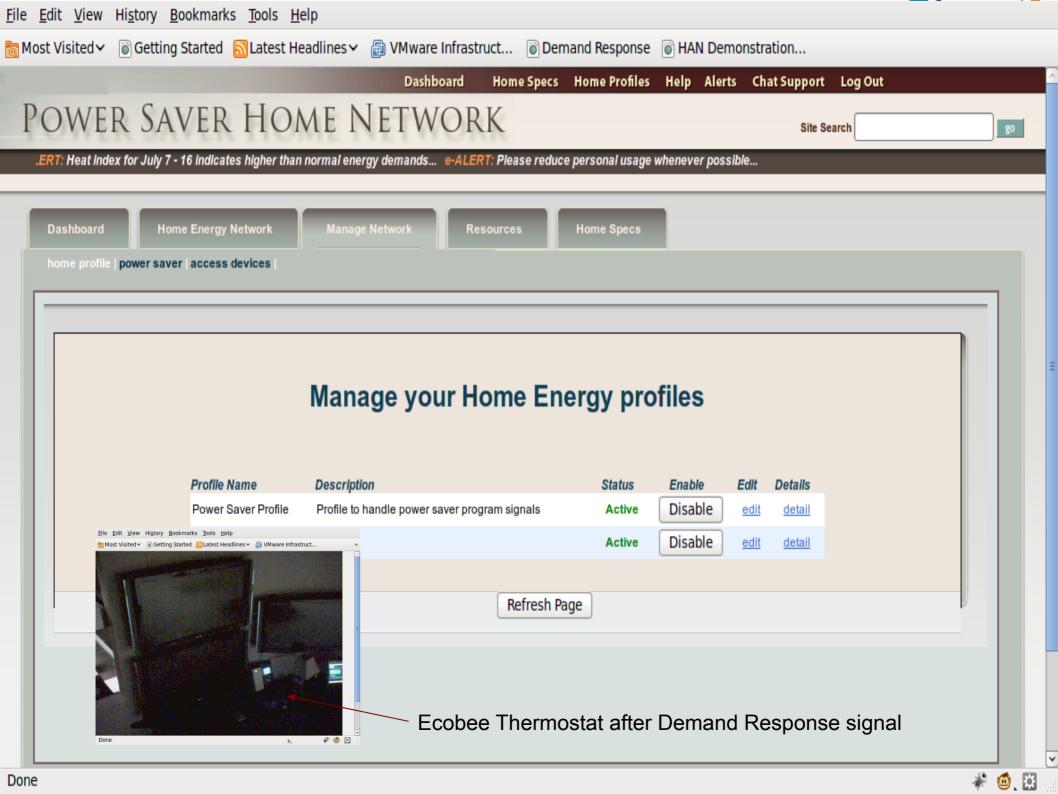






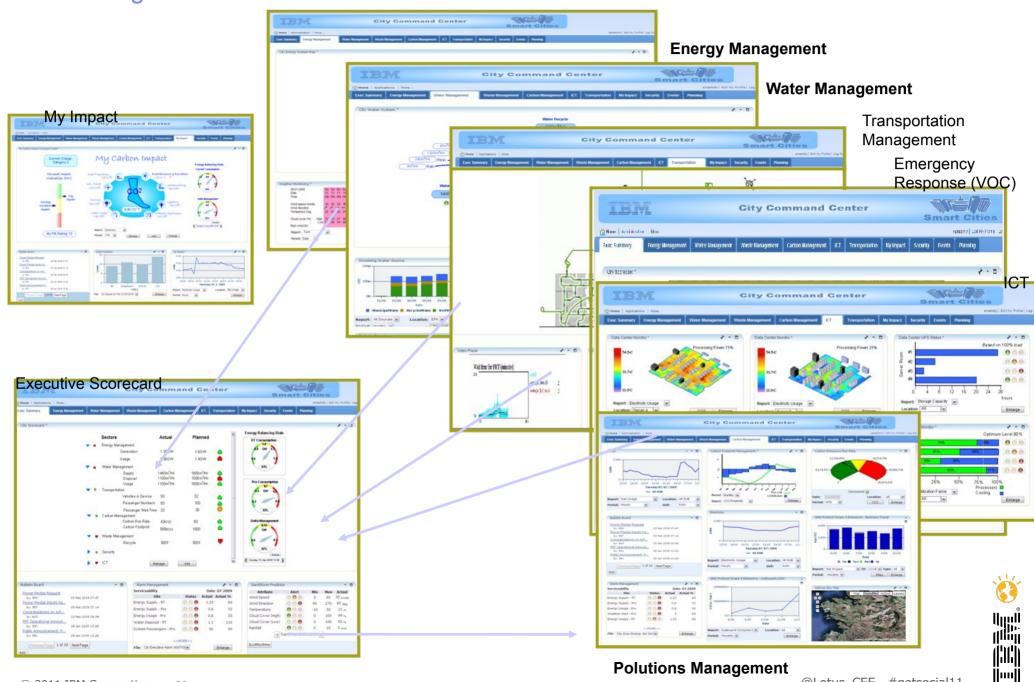








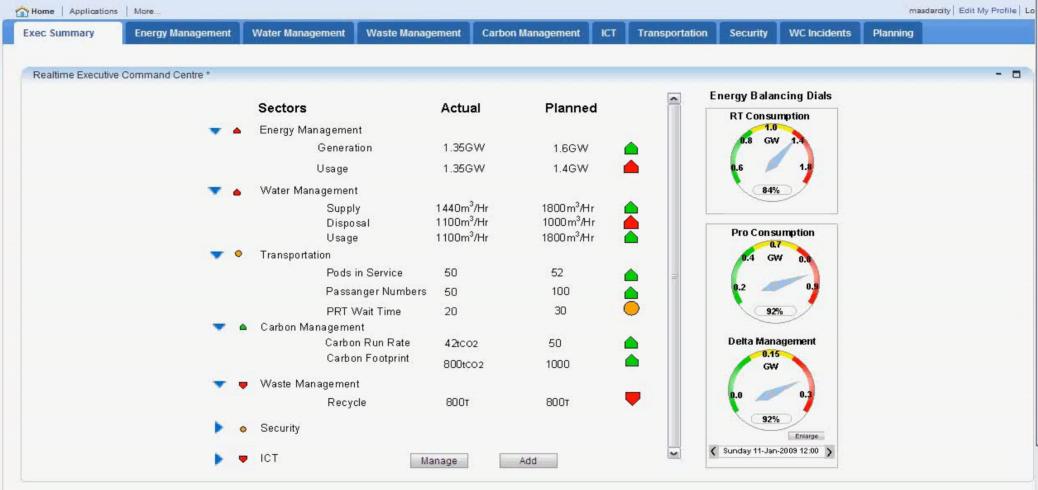
City Command and Control Center Monitoring and alerts

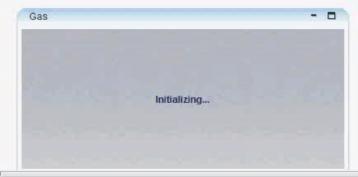




City Command Center







Serviceability		Date: 01.2009		
Site	Status	Actual	Actual %	
IT Security Status	000	8	80	
nt Security Level	000	4	40	
Ext Security Level	000	3	30	
University Sec Level	000	1	10	
Command Centre Status	0.00	1	10	





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City Command Center







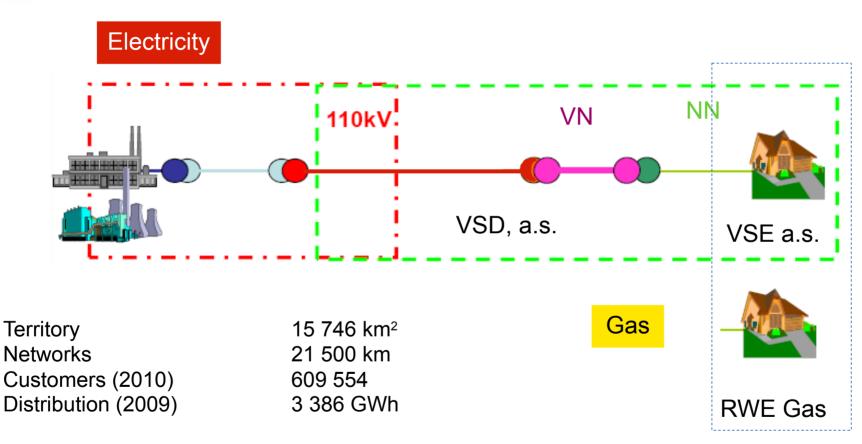


Vychodoslovenska energetika

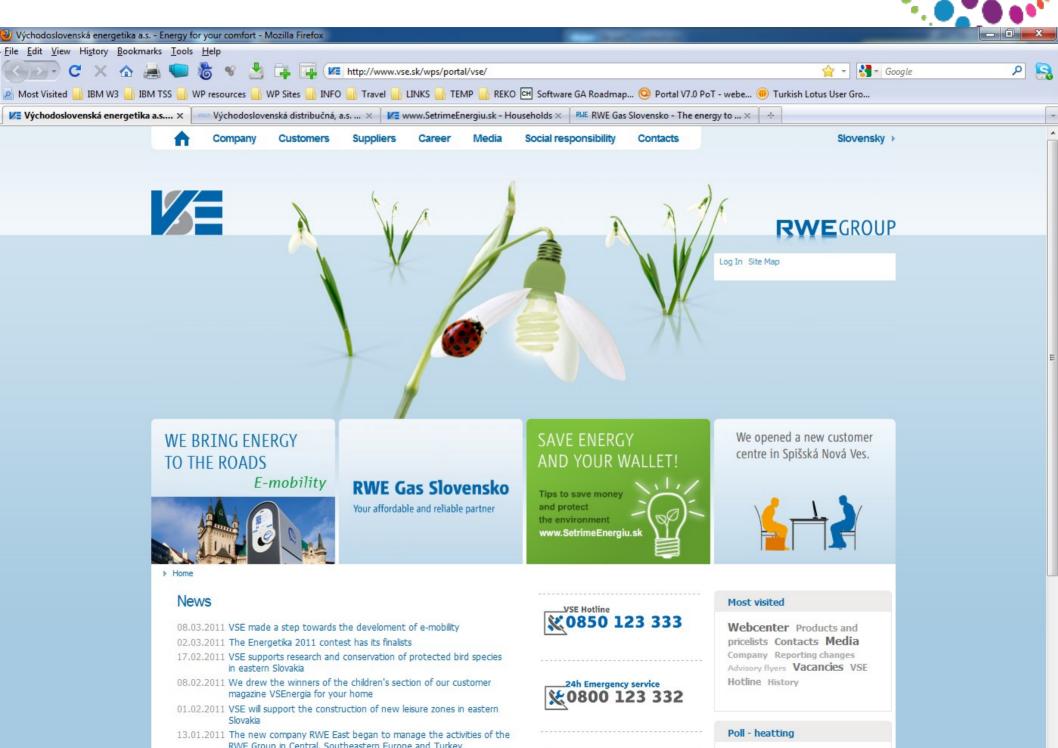
- Východoslovenská energetika a.s. (VSE) is a energy company which provides comprehensive services related to electricity off-take.
- Business activities of VSE are the purchase of electricity from producers and its sale to approximately 500.000 customers households, companies and organizations, accounts, and key accounts. By means of Integrated Power Supply Contracts VSE provide comprehensive services in the area of electricity sale and distribution. The shares of VSE are owned by Fond národného majetku (National Property Fund) (51 %) and the German Group RWE (49 %).
- Business need: Provide integrated business information; Enhance enterprise communication and collaboration Simplify enterprise-wide user experience; Reduce costs of doing business
- Solution: IBM WebSphere Portal, IBM WebSphere Process Server, IBM WebSphere ESB, IBM partnership now going to next phase to Get Social with customer feedback and capable to power Smart Houses and Smart Cities

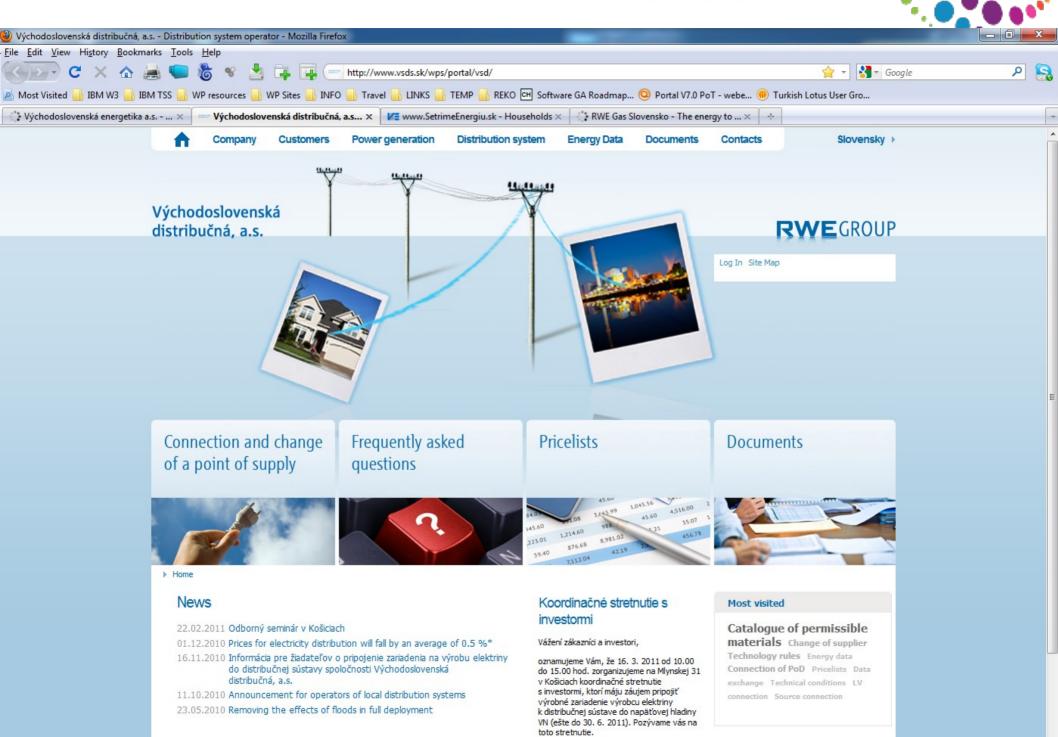




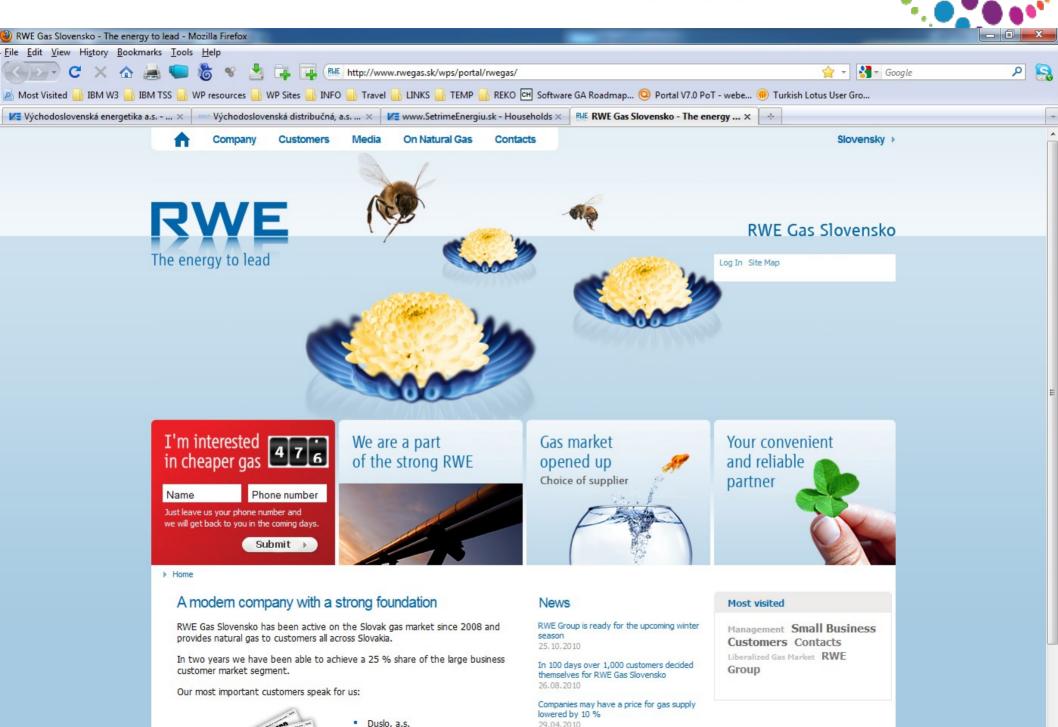












29.04.2010

RWE Gas Slovakia gained a 25 % market

U. S. Steel Košice, s.r.o.

nepredá plyn SPP





THANK YOU



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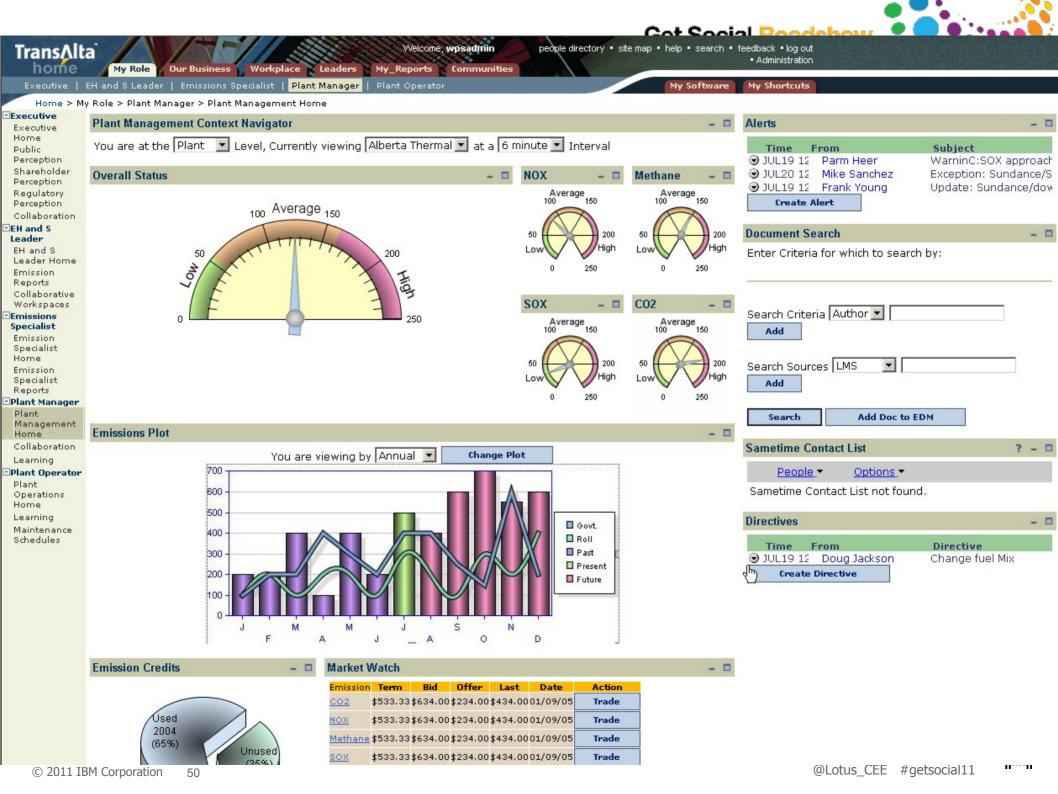
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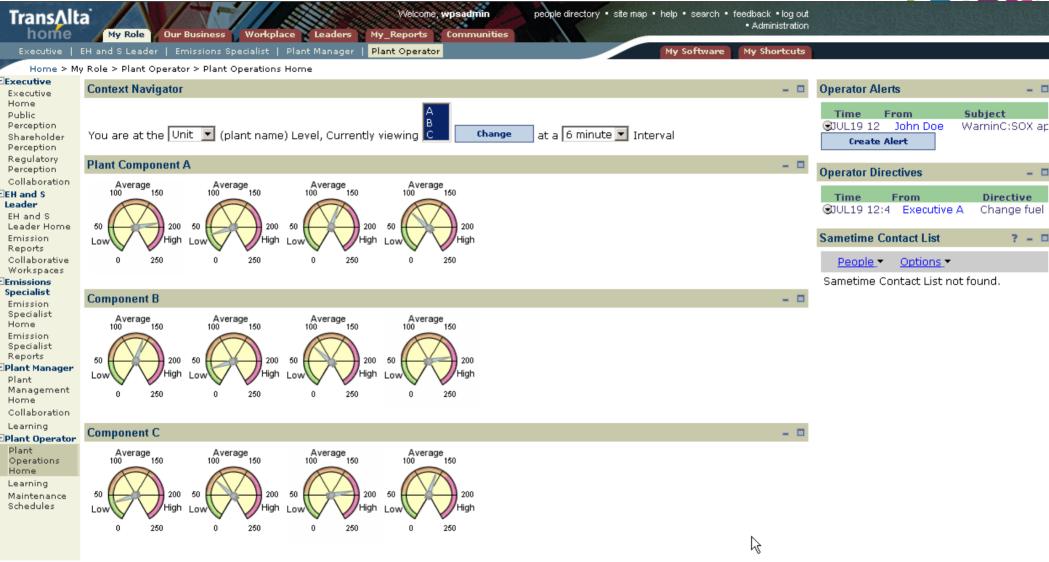
TransAlta

- TransAlta is the largest non-regulated power generation and wholesale marketing company in Canada.
- Business need:Provide integrated business information; Enhance enterprisecommunication and collaboration Simplify enterprise-wide user experience; Reduce costs of doing business
- Solution: IBM WebSphere Portal, IBM WebSphere Business IntegrationServer, IBM WebSphere MQ Workflow, IBM Global Services, IBM Software Services



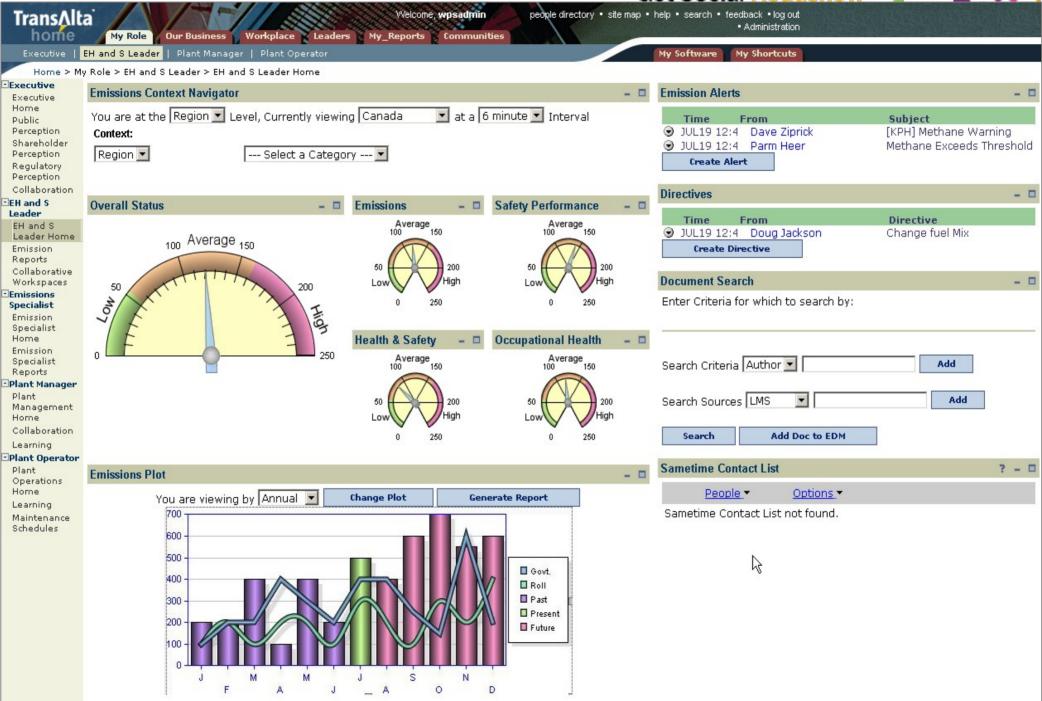
















Celesc - Centrais Eletricas de Santa Catarina S.A.



- An energy utility in Brazil improves employee and IT staff productivity when it consolidates its applications on a portal built with IBM WebSphere Portal Enable software
- Business need: Celesc needed to consolidate its disparate applications because the company had been having technical problems and management problems with such items as license renewals.
- Solution implementation: Celesc implemented IBM WebSphere Portal Enable V6 software to complement its IBM Lotus Domino collaboration platform. The company implemented its Lotus Domino software-based applications into a portal that was built with the solution.





Chubu Electric Power Co., Inc.



- An electric company in Japan speeds decision making and information sharing among team members while enhancing team productivity and work efficiency by leveraging IBM Lotus Notes, IBM Lotus Quickr and IBM WebSphere Portal Enable software to establish a new information collaboration system for its 16,000 employees
- Business need: Needing to strengthen its ability to resolve customer issues and optimize
 the information lifecycle, the company sought to streamline and speed information sharing
 by establishing a companywide collaboration platform.
- Solution implementation: IBM WebSphere Portal V6, which provides a user-friendly, security-rich front end to the company's intranet





CenterPoint Energy

- A major energy delivery company in the United States expects to remotely connect and disconnect meters, provide improved meter reading processes and react to outages more quickly
- Business need: Like many utility companies, CenterPoint Energy had a transmission and distribution infrastructure that had not changed significantly in almost 50 years. When an electric outage occurred, the company usually had to rely on calls from its customers to pinpoint the outage.
- Solution implementation: WebSphere Portal Enable was chosen as the best solution to deliver a concise integrated web solution for the many disparate technologies CenterPoint is working with on their Advanced Metering Solution.





Cairn Energy PLC



- An independent, public oil and gas exploration and production company based in the United Kingdom
- Business need: Customer consolidates its information into a single repository, enhancing accessibility, reducing duplication, increasing security and automating some of its previously manual processes, when it deploys a solution based on IBM WebSphere Portal Enable software
- Solution implementation: Focusing on the needs of the client, the team made another deal-changing observation once work had begun: though Cairn Energy had an enterprise portal in place (Microsoft Sharepoint), it was hardly used. Sensing an opportunity for an IBM WebSphere solution, the team presented a comprehensive analysis comparing four or five portal products.





UNICCO Service Company



- Business need: To maintain high customer satisfaction, UNICCO needed the ability to costeffectively develop and deliver value-added services such as collaboration and reporting
- Solution:IBM® WebSphere® Portal Enable, IBM WebSphere Portlet Factory, IBM Lotus® QuickPlace® and IBM Workplace™ Dashboard Framework software running on IBM System x™ servers





ARPEL



- ARPEL fosters knowledge sharing among 30 state-controlled and privately owned oil and gas companies in Latin America and the Caribbean.
- Business need:Reliance on e-mail to structure the publication of documents on industry issues led to versioning problems; lack of a document library limited access to information
- Solution:IBM® WebSphere® Portal Enable, IBM Lotus Notes® and Domino® Version 7, IBM Lotus® QuickPlace® and IBM Lotus Sametime® software running on an IBM eServer™ xSeries® server





Entega

- Entega is a sales company for HEAG Sudhessischen Energie AG and Stadtwerke Mainz AG, and helps to bring electricity and water to nearly 1 million people in the Rhein-Main-Neckar region of Germany.
- Business need:Operating in the newly-liberalized German energy market, Entega understands that customer service is the key to increasing market share. If Entega could offer online self-service for customers to manage accounts at their own convenience, fully integrated with the back-end billing systems, this would help attract and retain new business in a commoditised marketplace as well as eliminate expensive manual processing.
- Solution: Worked with IBM Business Partner BMS Systems (www.bmssys.de) to develop a customer self-service portal using IBM WebSphere Portal, that would interface with backend SAP systems via IBM WebSphere Business Integration software.





Shell Canada Ltd.

- A petroleum company in Canada slashes maintenance costs, improves productivity and speeds remote access from 30 seconds to just one or two seconds when it deploys IBM WebSphere Portal – Enable software and an IBM eServer iSeries server to support new Web-based remote access to business-critical PeopleSoft applications
- Business need: Shell began looking for a solution to simplify local and remote connections to these critical business applications. The company wanted to use a Web-based interface to deliver access through a Web browser, wireless device or any other Internet-connected device.





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