



Scaling Access Control and SSO

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Presented By:

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Overview

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BC Hydro

- Regulated Electric Utility
- Gov't Crown Corporation
- 1.6 million+ customers
- 4,000+ employees
- Serve area more than twice the size of California



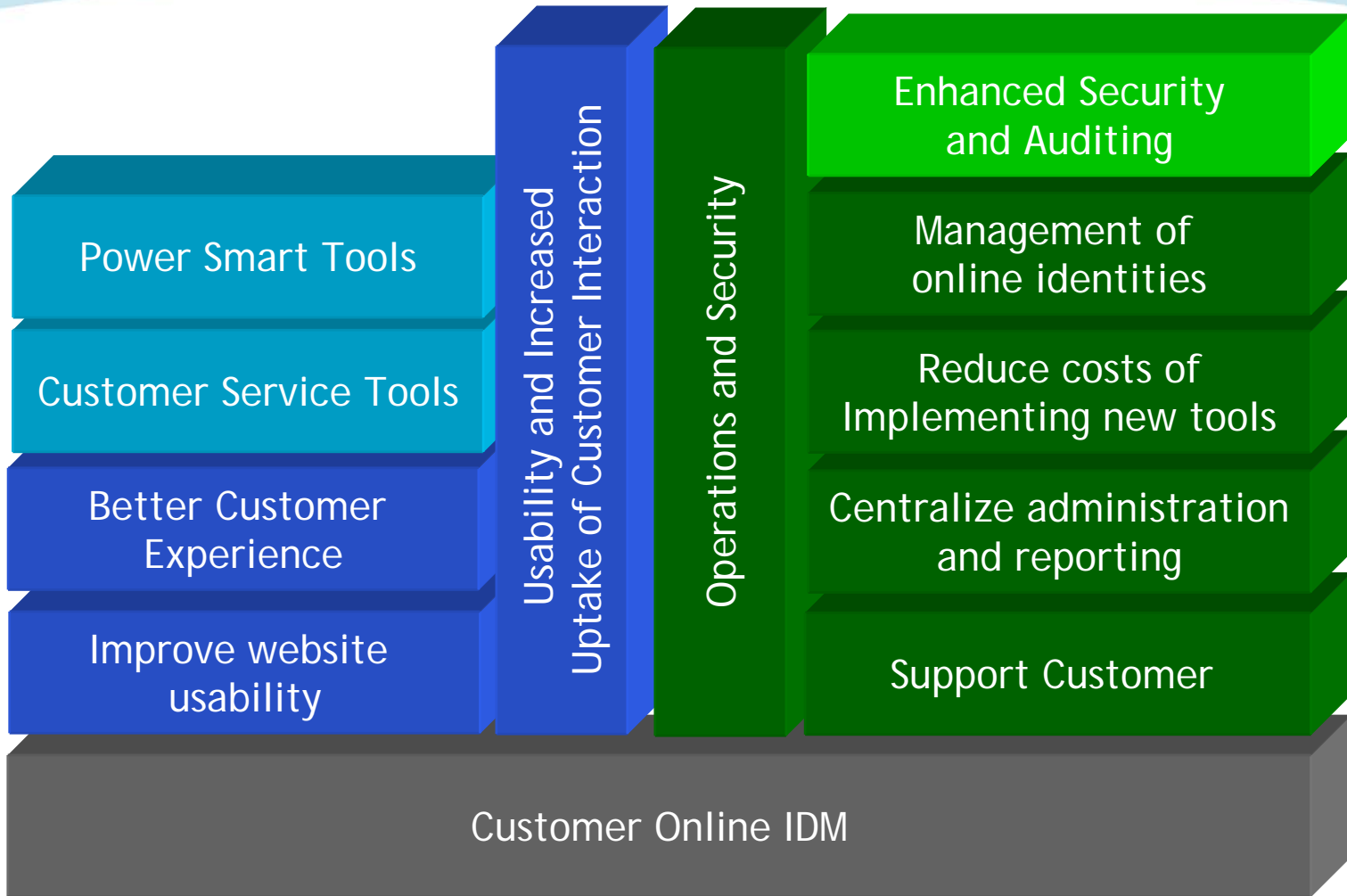
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Initial Situation

- 80,000+ online users
- 13 customer web applications that required log in
- No central user repository or management
- Hard to manage, expensive to add applications

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Why Customer Single Sign-on?



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Requirements

- Support multiple operating systems on multiple networks
- High availability
- Seamless sessions between applications/servers
- Internal administration tool that can connect to internal Novell
- Open architecture, support federated log in

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Selection

- RFP Process – Spring to Summer 2003
- Proof of concept with Sun Microsystems
- Vendor Chosen: Sun

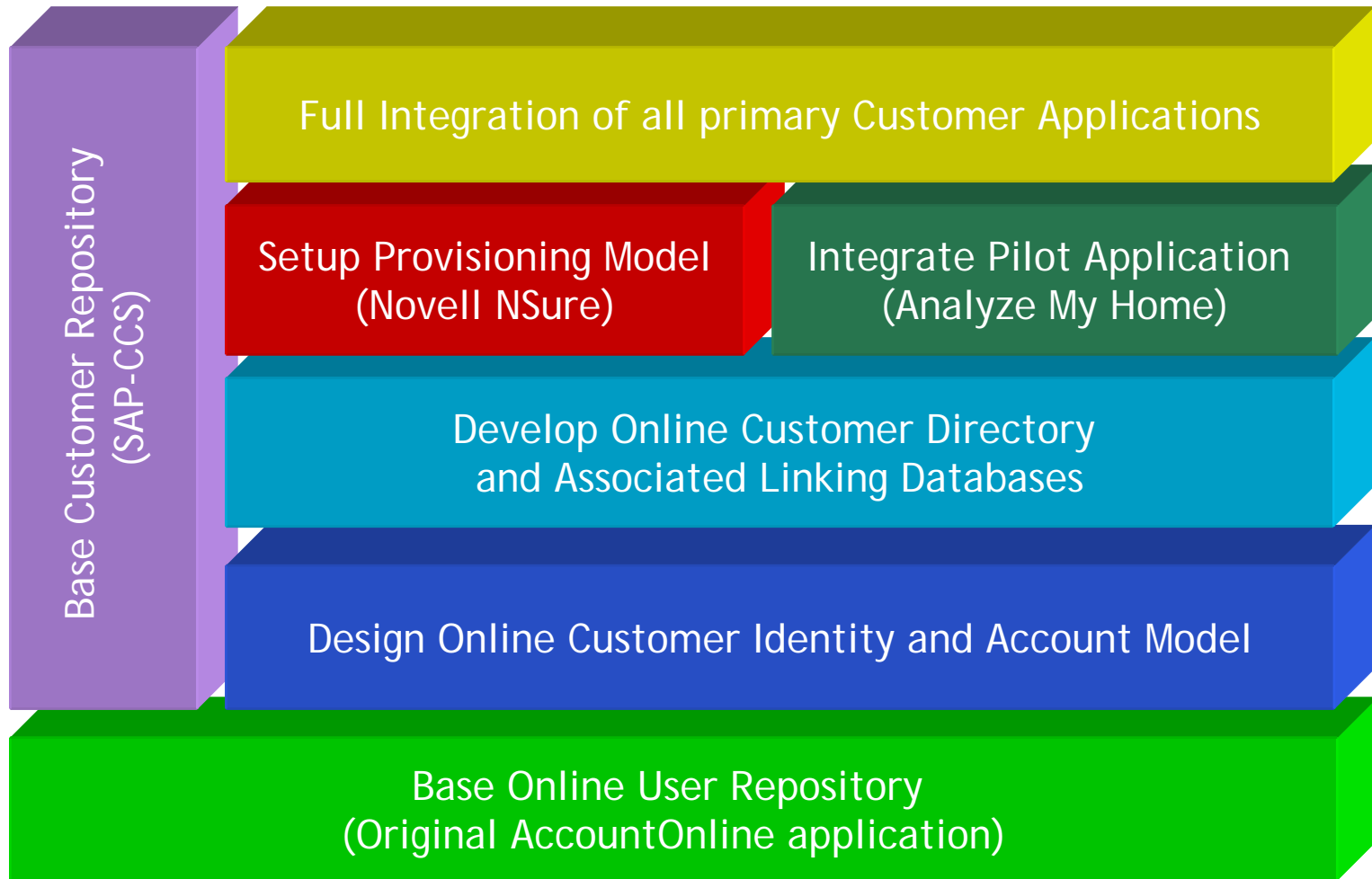
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Launching First Implementation

- Challenges
 - > Web server agent configuration
 - > Support limited in 2003
 - > Few best practices
 - > Firewall rules
 - > Getting multiple ID servers to talk

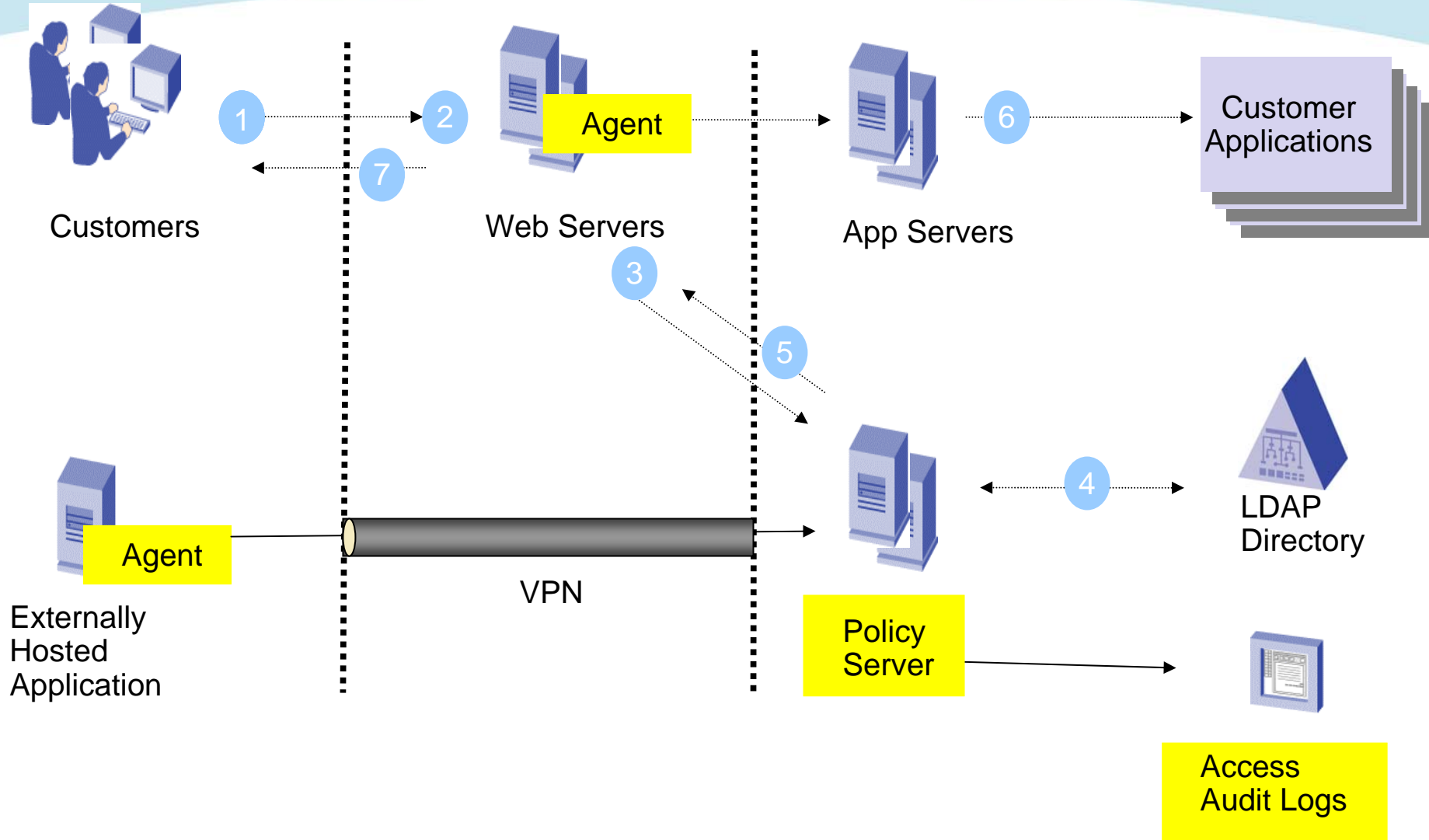
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Approach



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Architecture



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Implemented Projects – Last 3 Years

- Online billing (stand alone application from 1997 until 2003, then integrated into single sign-on)
- SunOne Identity Manager, LDAP and web server agents. Pilot with Analyze My Home online tool (2004)
- Online billing, eNewsletter and new connection application integrated into single sign-on (2005)
- Novell Provisioning between customer applications (2005)
- Enhancements for better support of business customers (organization hierarchy/business accounts), 2006
- First remotely hosted application: outage notification for large business customers (2006)

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Key Learnings

- Need for custom log in module
- Provisioning – big gotcha
- Initial setup can be a challenge, but very solid once done (web server agents, multiple ID servers, LDAP)
- Developers need to code for complex environment (connections left open = apps slow down)
- Getting SSO to work with server on other side of the country
- Need to test with firewalls early in the process

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Current View of IDM-linked Features

bchydro.com login

- One ID & Password
- User Profile Management
- Account Management
- Billing Settings
- Employee Management

Customer Support

- One customer service interface
- Tracking & Reporting

Future applications

- Customer self-serve move-in / move-out
- Business rebate applications
- Live Metering
- Incentive application tracking



Billing & Consumption

- Account Summary, Balance, Payment History
- Online Billing (including ability to turn off paper bil)
- Consumption Graphs and Data



Analyze My Home

- Interactive tool that gives customers specific recommendations on saving energy and money



eNewsletters

- Customers may subscribe to Residential or Business email newsletters that give them Power Smart tips and other interesting information



Get Connected

- Online request for new construction connection, physical connections and alterations to their service



Outage Notification

- Subscription management of pro-active automated outage notifications for business customers

Customer Interfaces

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January 27, 2006

A - Z INDEX

CONTACT US

SEARCH



HOW TO

ANALYZE

To be

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BC Hydro - Analyze My Home - Microsoft Internet Explorer provided by BC Hydro CDS IE6.0sp1 rev030204

BC Hydro POWER SMART ANALYZE MY HOME Complete the steps to receive Power Smart tips. When you complete the analysis, you'll receive comprehensive information and detailed recommendations for improving energy consumption based on your home type. To continue, select Home Overview.

Updated: 12/28/05 2:33 PM **1. HOME OVERVIEW** Preliminary Analysis

Completed: 12/28/05 2:34 PM **2. STRUCTURAL INFO**

Completed: 12/28/05 2:34 PM **3. HEATING**

Completed: 12/28/05 2:34 PM **4. COOLING**

Completed: 12/28/05 2:36 PM **5. APPLIANCES**

Completed: 12/28/05 2:38 PM **6. LIVING SPACE**

Completed: 12/28/05 2:38 PM **7. OUTDOOR/SEASONAL**

APARTMENT/CONDO

GENERATE MY REPORT

SAVE AND EXIT



Internal Support Interface

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BC Hydro - Energy Management Centre Admin - Microsoft Internet Explorer provided by BC Hydro CDS IE6.0sp1 rev0...

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites W

Address <https://w3exssob.bchydro.com:8792/emcadmin/HomePage.do> Go

hydroWeb **BChydro**

emc bchydro.com users administration [Logout](#)

Home

Welcome, Michael

This application provides full access to bchydro.com user profiles, enabling you to review and edit a customer's online details.

Please perform a search to get started.

Tools

Send EMC promo email to:

[See sample email](#)

EMC Online Billing Contest Standings

	CSR	Online Only Billing Total
1	tdixon	189
2	adubowit	127
3	gkadoran	123
4	gbanman	111
5	bkler	85

[See Complete Standings](#)

Search for a User Name, ID, Email or Account Number

Search By:

Search For:

[Register a New User](#)

Done

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Key Benefits

- Improved online customer satisfaction
 - > Tripled number of online customers
 - > Improved usability
 - > Customers resolve own forgot ID/password issues
 - > Increased uptake on all customer web applications
- Improved management & security
 - > One internal user support interface
 - > Reporting
 - > Ease of scaling new applications
 - > Audit trail

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Summary

- Customers satisfied – usability, reliability
- BC Hydro satisfied – cost, reliability, support, usability
- Future
 - > Integrate 6 additional web self-serve applications over the next year
 - > Upgrade to latest version of Sun Access Manager
 - > Portal-ize entire customer web site
 - > Aligning solutions to work with future BC Government “Citizen Identity” model

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Questions?

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