

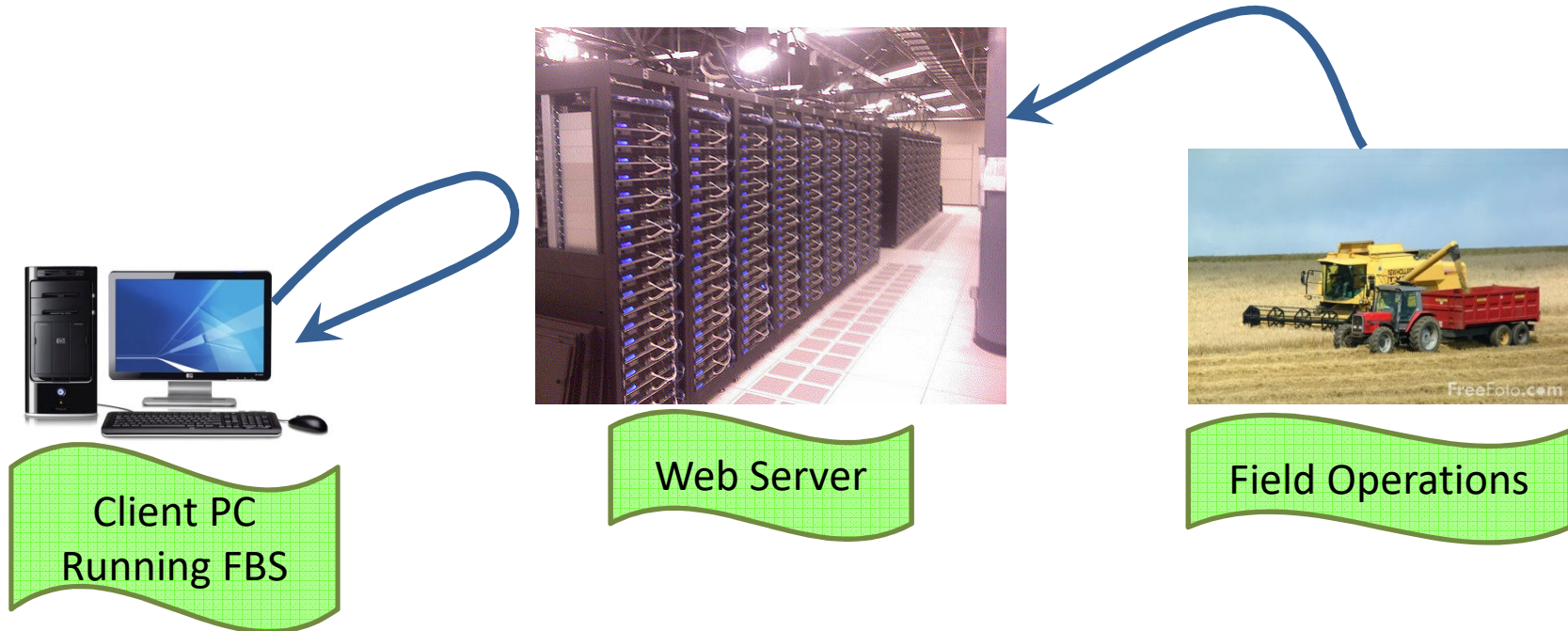


Activity-Based Cost Accounting for Farm Management



- Internet of Things (IoT) promises universal availability of digital activity records generated by equipment or operators
- FBS is working with its partners to gather this activity data into its integrated cost accounting system

Pulling Activity Data Into FBS



- Leverages Windows built-in Internet communications, security, and encryption technologies
 - Can reach any server connected to the Internet
 - Pulls data down to the desktop, just like a browser
 - Works while the PC is on and the server is up
 - Coming with Version 11: runs in the background, like a virus scanner; notifying the user when data needs to be mapped

FBS Software on Web Servers



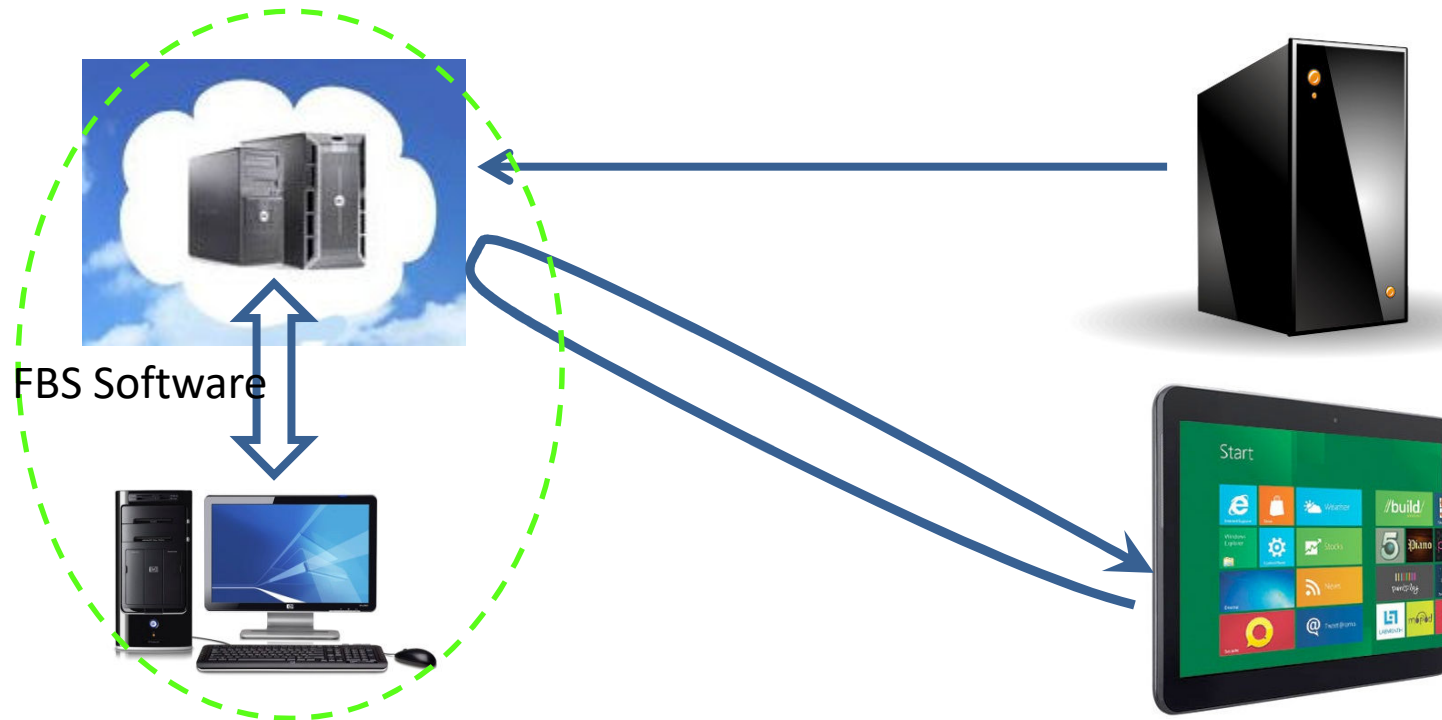
- Today – Remote Desktop and Dashboard
- Planned for 2017 – partners “pushing” data to FBS on server
- Future – Smartphone and Tablet Apps for interacting with FBS

FBS on Web Servers: The KISS Principle

- Problem:
 - Secure, highly-available, 24x7 operation of Web Servers would be an expensive and complex IT task for FBS customers
 - Support of diverse Web Server customer configurations would be an expensive and complex task for FBS
- Solution:
 - FBS maintains a standard configuration for customers on outsourced Web Servers in the Cloud



How it works: The Hybrid Cloud



- FBS on the PC periodically synchronizes data with the Cloud
 - Each Customer has their own virtual database in the Cloud
- FBS partners can push data all the time, any time, to FBS
- FBS smartphone/tablet Apps can interact with FBS Cloud data

Version 11 Technical Features

- Windows XP is dead, long live Windows 7
 - Version 11 as distributed, will not install on Windows XP or Vista
 - Contact FBS for special Windows XP or Vista support, as core FBS modules will still run on Windows XP SP3 with the .Net 4 Framework
- Upgrade from Jet 3.5 to Jet 4.0 database
 - Jet 4.0 is a fully supported Windows Vista, 7, 8, 8.1, and 10 component
 - Improved database reliability in Windows Server 2008 R2, 2012, and 2012 R2 configurations
- Upgrade from .Net Framework 3.5 to .Net Framework 4
 - Using .Net 4 features in Dashboard and Conservis Interface
- Merging of Version 8 and Version 10
 - Eliminates differences between Version 8 and 10 data files and reduces FBS maintenance effort; (more time for new features)

Version 11 Business Benefits

- Jet 4.0 *.mdb files can be read, but not updated, by current versions of Access
 - Access will recognize them as Access 2000 files
- Windows 7 and .Net 4 Framework are required for Cloud integration and UI modernization
 - Conservis Interface already uses these features
- Supports 2017 modernization effort
 - Rollout of faster reports with improved user interface
 - Replacment of old Visual Basic 6.0 code and COM controls
- Stepping stone to Version 12 which will move setup data into Jet 4.0 databases (*.mdb files) and add support for SQL Server

Faster, Stronger Reports Are Coming in 2017 As Upgrades to the Version 11 Release

- Crop History Report
 - 2.6 sec in Visual Basic 6 (Version 8)
 - 27 sec in Visual Basic .Net (Version 10)
 - Unoptimized code from an automated conversion tool
 - 1.9 sec in Visual Basic .Net (Version 11)
 - Current prototype, new reports not scheduled for initial Version 11 distribution
- Standard Cost/Vendor Monitor Report
 - 68.5 min in Visual Basic 6 (Version 8)
 - 12.8 min on Win 7, 11.5 min Win 10, Visual Basic .Net (Version 10)
 - 3x slower on a Win 8 laptop – machine or OS?
- New user interface technology for exporting and printing reports

Old Report Format

Brown's Forest Home Farms, Inc							
Crop History -- Chemical Applications				Date 8/19/2016 at 03:42 PM Page 1			
Period: 01/01/2014 to 12/31/2014		Actual Records		Application value from: Purchases			
Centers: 0-zzzzzz		Seeds: 0-zzzzzz		Fields: 0-zzzzzz			
Chemicals: 0-zzzzzz		Operations: 0-zzzzzz		Fertilizers: 0-zzzzzz			
Date	Actual	Chem.	Chemical Desc.	Field	Field Desc	Acres	Purch (Units)
04/01/2014	Actual	SHARPN	SHARPEN	15	NORTH RANDALL	24.00	522OZ
04/01/2014	Actual	HARXTR	HARNESS EXTRA	15	NORTH RANDALL	24.00	26QT
04/01/2014	Actual	RPMAX	ROUNDUP POWER MAX	15	NORTH RANDALL	24.00	4GAL
04/01/2014	Actual	NTENSE	N-TENSE	15	NORTH RANDALL	24.00	1GAL
04/01/2014	Actual	IMPACT	IMPACT 12X300OZ	15	NORTH RANDALL	24.00	0OZ
04/01/2014	Actual	4	ATRAZINE	15	NORTH RANDALL	24.00	6GAL
04/01/2014	Actual	CAPTUR	CAPTURE LFR	15	NORTH RANDALL	24.00	1GAL
04/01/2014	Actual	SHARPN	SHARPEN	9	CORNER 40	40.80	832OZ
04/01/2014	Actual	HARXTR	HARNESS EXTRA	9	CORNER 40	40.80	41QT
04/01/2014	Actual	RPMAX	ROUNDUP POWER MAX	9	CORNER 40	40.80	7GAL
04/01/2014	Actual	NTENSE	N-TENSE	9	CORNER 40	40.80	2GAL
04/01/2014	Actual	IMPACT	IMPACT 12X300OZ	9	CORNER 40	40.80	1OZ
04/01/2014	Actual	4	ATRAZINE	9	CORNER 40	40.80	10GAL
04/01/2014	Actual	CAPTUR	CAPTURE LFR	9	CORNER 40	40.80	2GAL
04/01/2014	Actual	SHARPN	SHARPEN	10	THE 120	118.50	2432OZ
04/01/2014	Actual	HARXTR	HARNESS EXTRA	10	THE 120	118.50	121QT
04/01/2014	Actual	RPMAX	ROUNDUP POWER MAX	10	THE 120	118.50	20GAL
04/01/2014	Actual	NTENSE	N-TENSE	10	THE 120	118.50	5GAL
04/01/2014	Actual	IMPACT	IMPACT 12X300OZ	10	THE 120	118.50	3OZ
04/01/2014	Actual	4	ATRAZINE	10	THE 120	118.50	30GAL
04/01/2014	Actual	CAPTUR	CAPTURE LFR	10	THE 120	118.50	6GAL

New Print Preview, Print, and Export Tool

The screenshot shows the ChemReport application window. The title bar reads "ChemReport". Below the title bar is a search bar containing "A". The main toolbar is divided into several sections:

- View:** Includes "Print Layout", "Stop", "Refresh", "Parameters", "Outlines", and "Thumbnails".
- Navigation:** Includes "Page 1 of 7", "Back", "Forward", and "Page Sets".
- Zoom:** Includes "Zoom", "1:1 Actual Size", "Page Width", and "Whole Page".
- Pages:** Includes "Portrait" and "Landscape" orientation options.
- Tools:** Includes "Page Setup", "Print", "Export", "Find", "Hand Tool", "Text Select Tool", and "Copy Text".

The main content area displays a "ChemItem Report" table with the following data:

Activity	DActualOr	FbsNum	FbsDescr	FieldNum	FieldDes	Acres	Quantity	Unit	Price	Value	ValueSol	RatePer	APur	Unit
04/01/2	Actual	NTENSE	N-	40	PASTUR	36.00	1.650	32.68	53.92		0.05			GAL
04/01/2	Actual	HARXTR	HARNES	5	BOTTO	0.00	53.040	18.35	973.27		0.00			QT
04/01/2	Actual	RPMAX	ROUND	5	BOTTO	0.00	9.000	42.86	385.78		0.00			GAL
04/01/2	Actual	NTENSE	N-	5	BOTTO	0.00	2.550	32.68	83.33		0.00			GAL
04/01/2	Actual	IMPACT	IMPACT	5	BOTTO	0.00	1.550	16.39	25.40		0.00			OZ
04/01/2	Actual	4	ATRAZI	5	BOTTO	0.00	13.270	19.05	252.79		0.00			GAL
04/01/2	Actual	CAPTUR	CAPTUR	5	BOTTO	0.00	2.740	222.00	608.28		0.00			GAL
04/01/2	Actual	SHARPN	SHARPE	13	EAST	164.00	340.480	9.98	3,396.93		2.08			2OZ
04/01/2	Actual	HARXTR	HARNES	13	EAST	164.00	170.560	18.35	3,129.75		1.04			QT
04/01/2	Actual	RPMAX	ROUND	13	EAST	164.00	28.940	42.86	1,240.49		1.41			GAL
04/01/2	Actual	CAPTUR	CAPTUR	1	HOME	132.50	13.160	222.00	2,921.52		12.71			GAL
04/01/2	Actual	SHARPN	SHARPE	40	PASTUR	36.00	69.120	9.98	689.60		1.92			2OZ
04/01/2	Actual	IMPACT	IMPACT	1	HOME	132.50	0.790	16.39	12.95		0.01			OZ
04/01/2	Actual	RPMAX	ROUND	40	PASTUR	36.00	5.820	42.86	249.47		1.29			GAL
04/01/2	Actual	NTENSE	N-	10	THE 120	118.50	5.840	32.68	190.84		0.05			GAL
04/01/2	Actual	IMPACT	IMPACT	40	PASTUR	36.00	1.000	16.39	16.39		0.03			OZ
04/01/2	Actual	4	ATRAZI	40	PASTUR	36.00	8.580	19.05	163.45		0.18			GAL