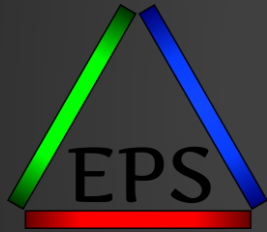# Enterprise Performance Strategies
Pivotor
Introduction and Demo

z/OS Performance Education, Software, and Managed Service Providers

Creators of Pivotor®

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EPS: We do z/OS performance...

- Reporting and analysis software and services
  - Not just reporting, but analysis based reporting based on our expertise

- Education and instruction
  - We have taught our z/OS performance workshops all over the world

- Consulting
  - Performance war rooms: concentrated, highly productive group discussions and analysis

- Information
  - We present around the world and participate in online forums

2019 z/OS Performance Workshops

- WLM Performance and Re-evaluating Goals
    - Virginia Beach, VA
    - October 2019

- Parallel Sysplex and z/OS Performance Tuning
    - Online
    - 3 days: Fall, 2019

✓ Essential z/OS Performance Tuning
    - Milwaukee, WI
    - 4.5 days: June 10 – 14, 2019

See https://www.Pivotor.com#workshops for more details

- Pivotor is our data reporting tool & service designed specifically for z/OS performance reporting

  - Designed and used by z/OS performance experts
  - Processes data from SMF, DCOLLECT, and customer sources
  - Contains hundreds of z/OS performance reports "out of the box"
  - Designed to be easy to use and manage
  - Reports are organized into logical and searchable report sets
  - Report sets are presented in a calendar format for easy access

Pivotor is different and disruptive

- Pivotor includes not just reporting but analysis and education
  - Pivotor reports designed by performance experts
  - Long-form helps for reports explain more than just what the metrics are
  - Playlists walk through the reports applicable to doing a particular analysis
  - Exception conditions trigger reports to be added to a dynamic playlist of reports warranting investigation
- Pivotor is easy
  - As a service, simply FTP us your data
  - As a local install, maintenance tends to be easy
  - No domain-specific language to learn and maintain
- Pricing is fair and sensible
  - Starts at $25K (or less with multi-year deal)
    - Free Tier also available
  - Pricing not based on MIPS but related to the data processed (e.g. systems, GBs)

Comprehensive Report Sets
for Immediate Performance Analysis

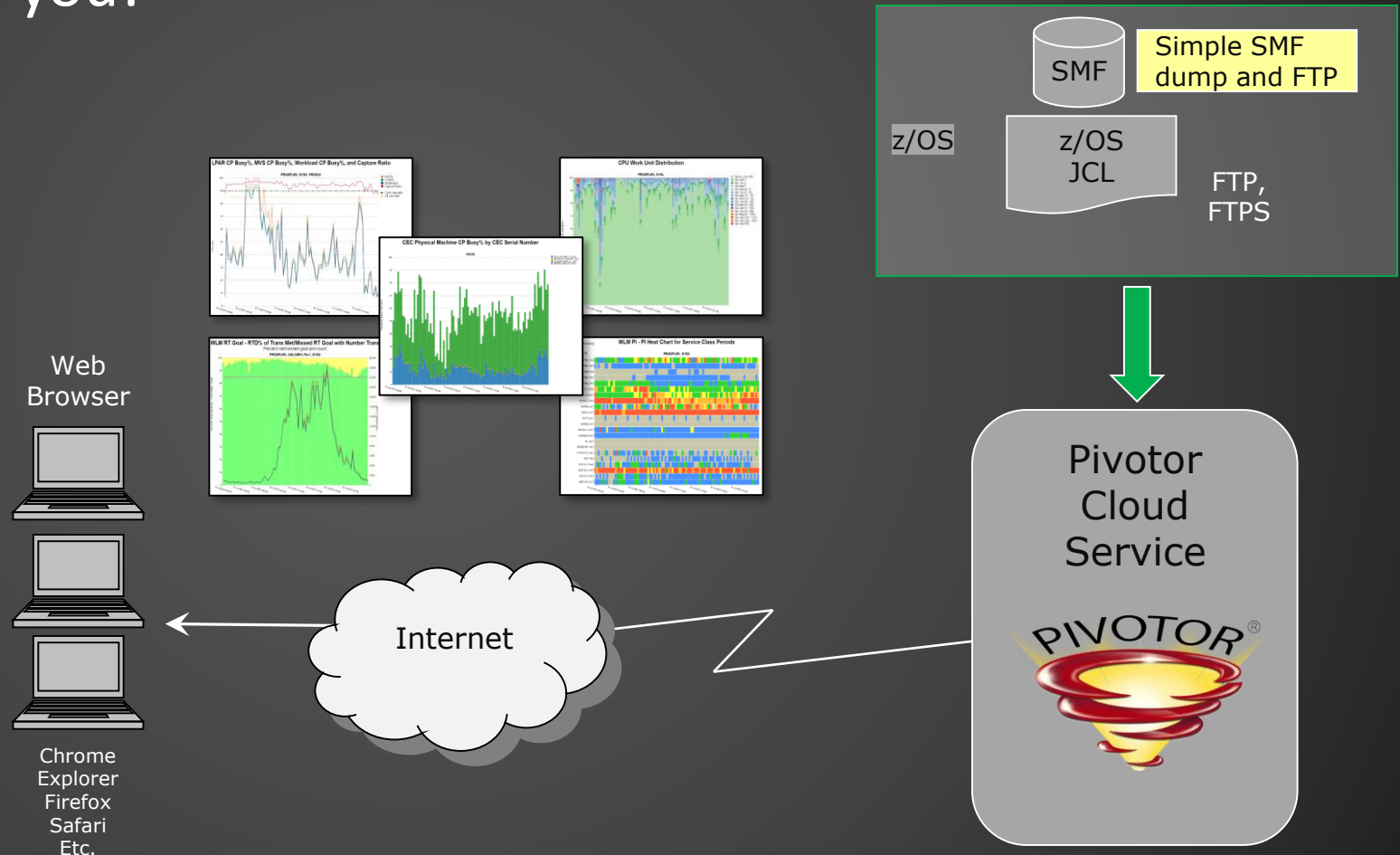|			
Processor Analysis	Workload Manager (WLM) Analysis	DASD I/O Subsystem Analysis	DB2
MSU, MLC, Usage, Multiplex Analysis	Communication Server TCP/IP, FTP, etc. Analysis	Workload I/O Analysis	WMQ Trans
Storage / Paging Analysis	System Logger Analysis	DFHSM Analysis	CICS
Sysplex and Data Sharing Analysis	DCOLLECT Analysis	Transaction and Workload Analysis	WAS WebSphere AS
Coupling Facility Analysis	Batch Application Analysis	GDPS / Global Mirror Analysis	File-level I/O
USS Analysis	Custom Reports (e.g. Mgt Rqmts)	Other SMF	Root Cause / Performance Debug Analysis
WMQ Interval	Customer Application Data	Trend / Stats Long term Analysis	WLM Algorithm Analysis
		Environmental Summary Reports	

>1200 reports "out of the box"

Across multiple timeframes: daily, weekly, monthly, yearly, rolling *n* days, etc.
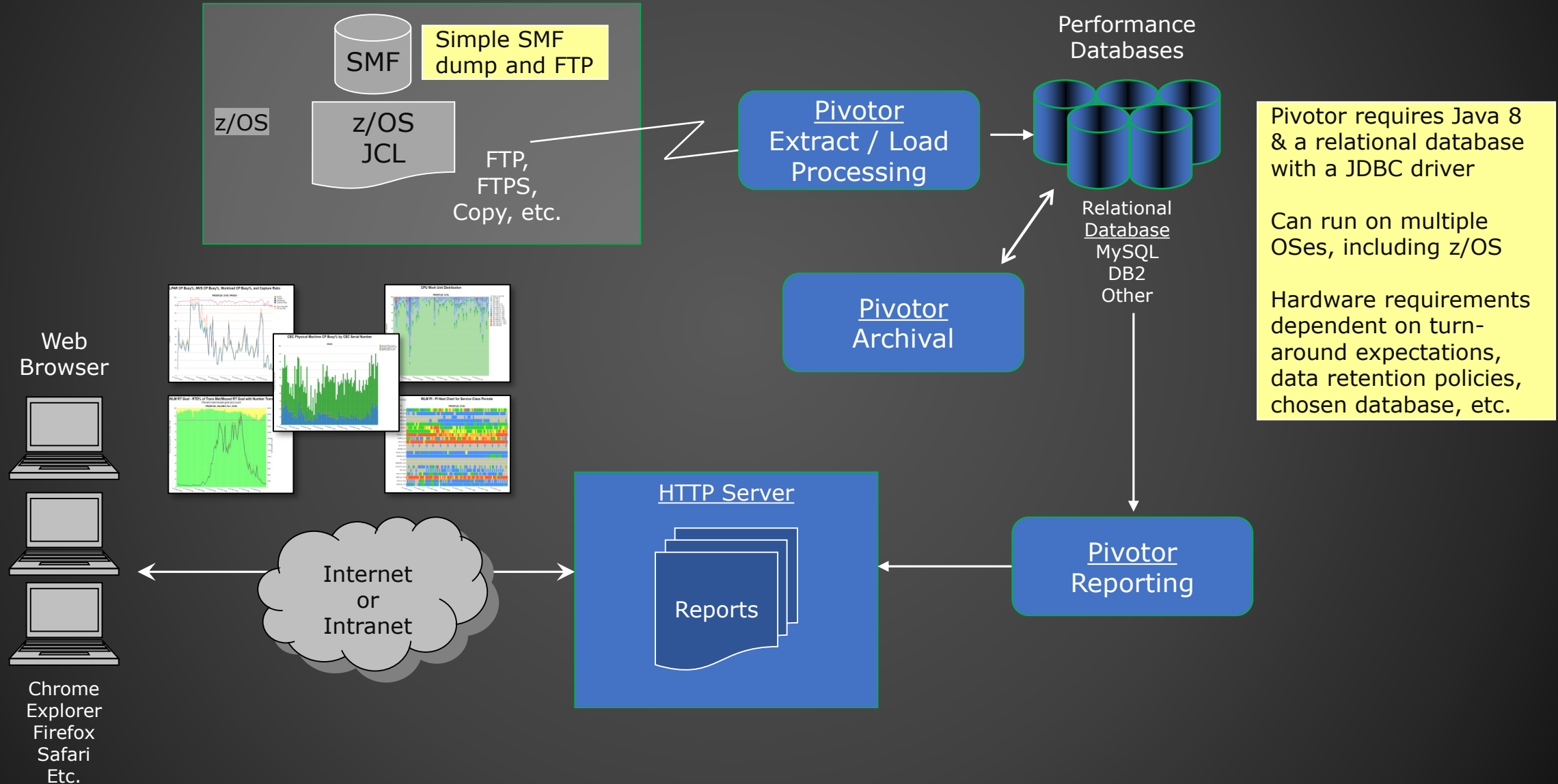
Pivotor Software as a Solution (SaaS)

We do everything for you!

Because we also have access to your data, SaaS Includes:

- Twice a year review / discussion

- Ability to ask us performance questions, or for us to look at a particular problem or concern.

- We can occasionally look in on your data and performance

- We can participate in performance debug with IBM, or other vendors

SMF

Simple SMF dump and FTP

z/OS

z/OS JCL

FTP, FTPS

Web Browser

Chrome
Explorer
Firefox
Safari
Etc.

Internet

Pivotor Cloud Service

PIVOTOR®

Structure of a Pivotor Local Installation

SMF

Simple SMF dump and FTP

z/OS

z/OS JCL

FTP, FTPS, Copy, etc.

Pivotor
Extract / Load Processing

Performance Databases

Relational Database
MySQL
DB2
Other

Pivotor requires Java 8 & a relational database with a JDBC driver

Can run on multiple OSes, including z/OS

Hardware requirements dependent on turn-around expectations, data retention policies, chosen database, etc.

Pivotor
Archival

Web Browser

Internet or Intranet

HTTP Server

Reports

Pivotor
Reporting

Chrome
Explorer
Firefox
Safari
Etc.

Value Statement

- Hardware Savings (mostly CPU Capacity)
  - As a SaaS, nearly no machine capacity required since customers just FTP their data

  - As a local install on z/OS, Pivotor takes advantage of specialty engines
    - Pivotor can also run on Linux / UNIX / Windows platforms

  - Pivotor can process large volumes of data that take many hours to run via other SMF data processing products in a fraction of that time

- Software Savings
  - Pivotor is not dependent on any other costly software products
    - Pivotor does not require some other package to process SMF data

Value Statement cont…

- People and Time Savings
  - Pivotor alleviates performance administrators from having to maintain and run costly reporting facilities
  - Pivotor manages the archival of performance data
  - Reports organized for easy analysis and problem determination
- Installation specific reports
  - Pivotor can recreate most existing custom reports
- Performance expertise, and Pivotor support staff available for questions
  - For SaaS customers EPS conducts a semi-annual cursory performance review
  - For SaaS customers, when we find new/unusual performance issues with one customer we check other customers' data for the same problem

Pivotor SaaS Deliverables

- Standard services offering
  - Standard z/OS Health Check® reports
    - Daily, Weekly, Monthly, Yearly
  - Overview and trending rolling 8 day and 8 week report
  - Monthly Multiplex reporting for MLC analysis
  - Batch Application reporting (with customer input)
  - Customized reporting specific to your needs and environment
  - Twice a year one-on-one phone call with Peter Enrico / Scott Chapman
    - Review current environment and reports
    - Also available for questions/concerns as they come up throughout the year

- Additional priced offerings
  - Retroactive reporting
  - Regular reporting of transaction data such as DB2, CICS, WAS, WMQ, etc.
  - Subsystem and special study reporting
  - More extensive custom reporting

Some Pivotor reporter features:

- Playlist Analysis
  - Playlists 'walk' a user through an analysis
- Exception analysis
  - Simple to complex conditions
- Expanded helps
  - Pivotor is a great vehicle for learning about z/OS performance
- Report overlays
  - When there is a need to look at one report on top of another
- Time filtering
  - When you want to focus on a specific time period within a reportset

More features

- Drill down / Search capability
  - Search by field, value, tag, or keyword
- Automatic aggregation of long-term data, with zoom to detail level
  - Min/max aggregation avoids hiding peaks in long-term averages
- Application Attribution
  - Enables fast and flexible custom reporting based on customer groupings
- Ability to incorporate business metrics into performance reports
  - Capture non-SMF data such as call center calls or bills produced
- Easily share reports
  - Export to PDF
  - Cut-Paste URL

Demo time!

Backup slides

Application Attribution

- The ability to assign additional attributions for report groupings for flexible custom reporting
  - Groupings:
    - appl_name, appl_service, app_group
    - Examples: Test vs Prod, ApplA, ApplB, etc. Test APPLA, Prod APPLA, etc.

  - Example of where they can be assigned:
    - SMF 30 – Batch
    - SMF 72 – Workload application reporting
    - SMF 101 – DB2 transactions
    - SMF 110 – CICS transactions
    - SMF 120 – WAS transactions

  - Example: Custom reports for all ATM production application based on batch jobs identified as part of the ATM application.

Some ways Pivotor is different

- All of your reports already run every day, kept in calendar
  - Comprehensive set of reports "out of the box"
  - No going back to rerun reports from last week or last month
- Thumbnail overview of reports
  - Quick at-a-glance overview
- Created by z/OS performance experts
  - Access to those experts as questions arise
- Designed to facilitate analysis
  - Searchable report sets (find all reports that reference a service class)
- Every graphical report can be exported to CSV, PNG, and PDF
- Easy and inexpensive
- Complimentary bi-annual reviews for our service customers

Pivotor for Capacity Planning / Long-term analysis

- Pivotor is primarily focused on performance analysis, but also captures daily statistics for long-term analysis

- Stats capture is parameter driven
  - Designed to capture stats for specific instances of a group of fields
  - Statistics captured per metric include: min, max, avg, std, various percentiles

- Stats data generally kept for much longer than the detail data

- Can be easily updated to capture customer-specific interest areas

```
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```