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Managing your Systems and Networks with CA Chorus™

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agility
made possible™



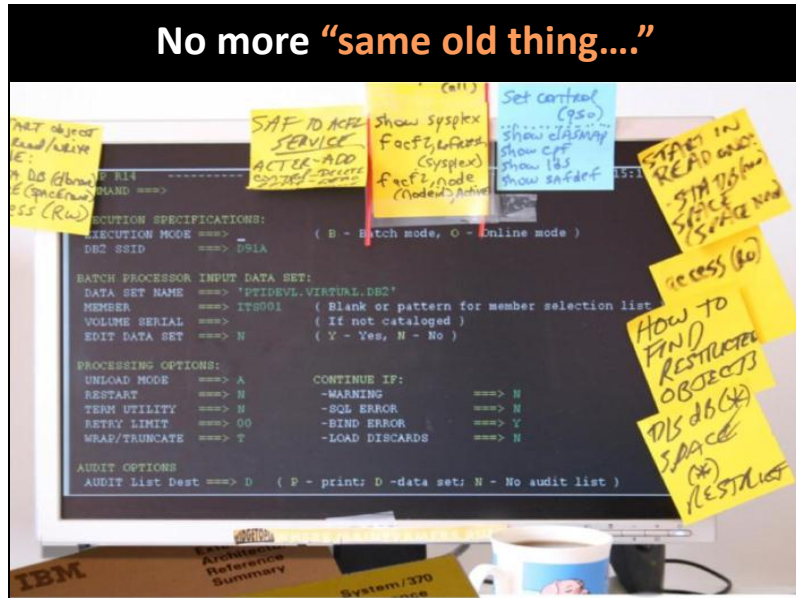
Agenda

- **CA Chorus Overview**
- **Introduction to the new Infrastructure Management Discipline**
- **Demo**
- **Q & A**



CA Chorus™

Enhancing Mainframe Productivity



No more "same old thing...."



CA Chorus changes everything

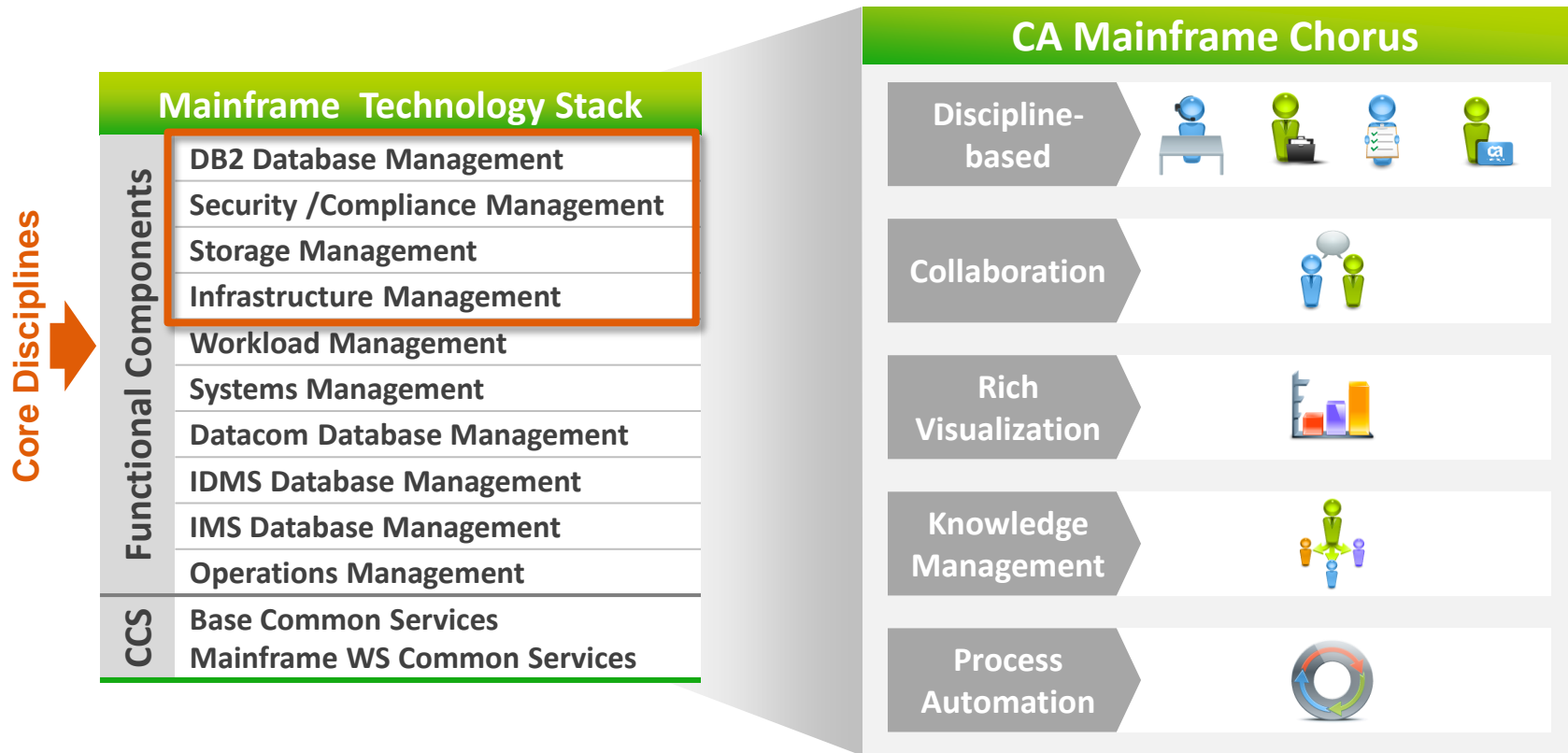
A new and fundamentally different user interaction model

- Based on **how people do their jobs**, *not how they use specific products*
- Provides rich features and data visualization in a web-based workspace
- Not just a bunch of disconnected GUIs
- True integration of products, process, and data

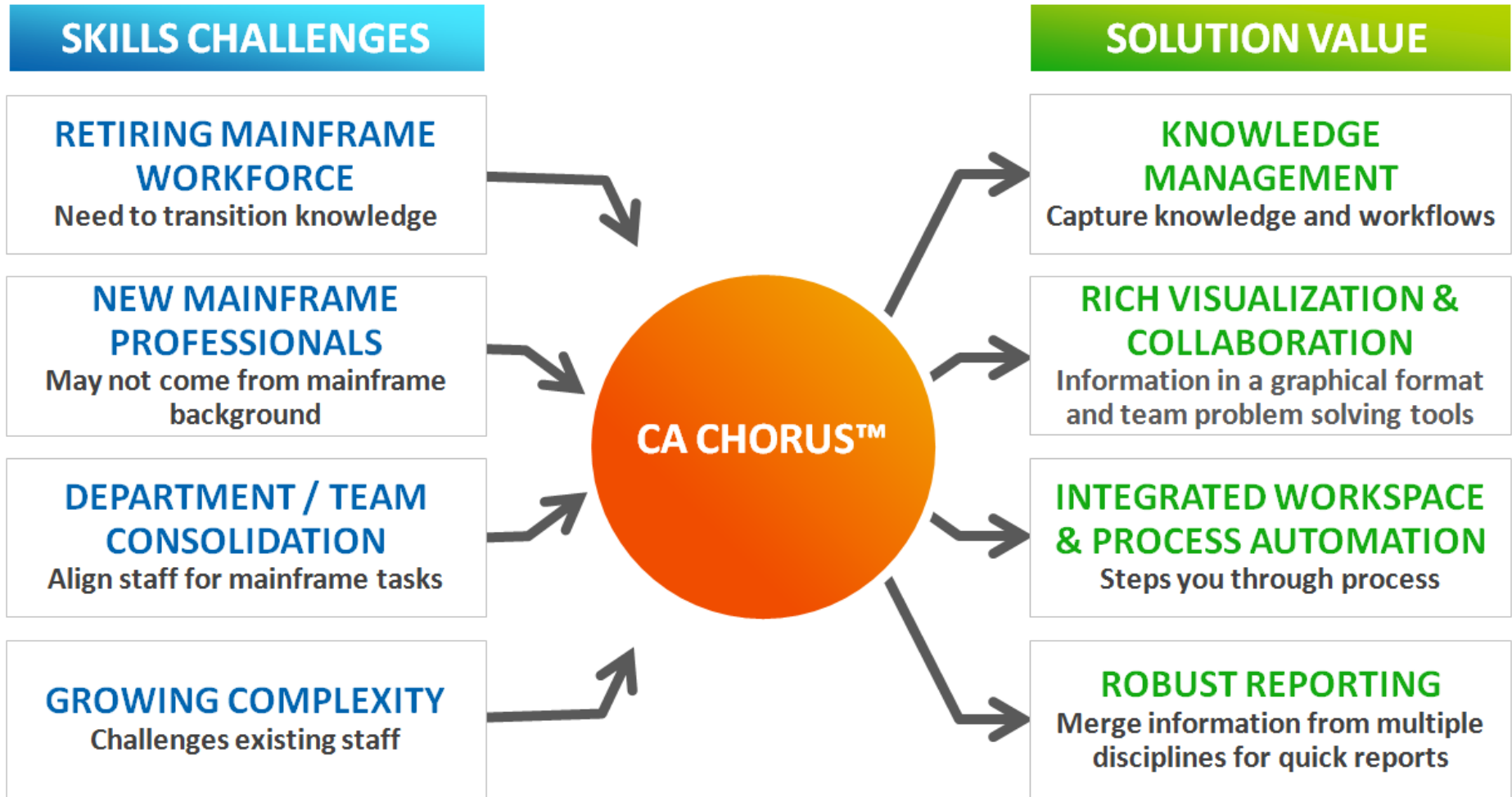
Improve staff efficiency

CA Chorus vision

Object-oriented workspace, with a new discipline-based interaction model that incorporates rich features and data visualization and leverages CA Technologies portfolio of products as a single bank of features and functions

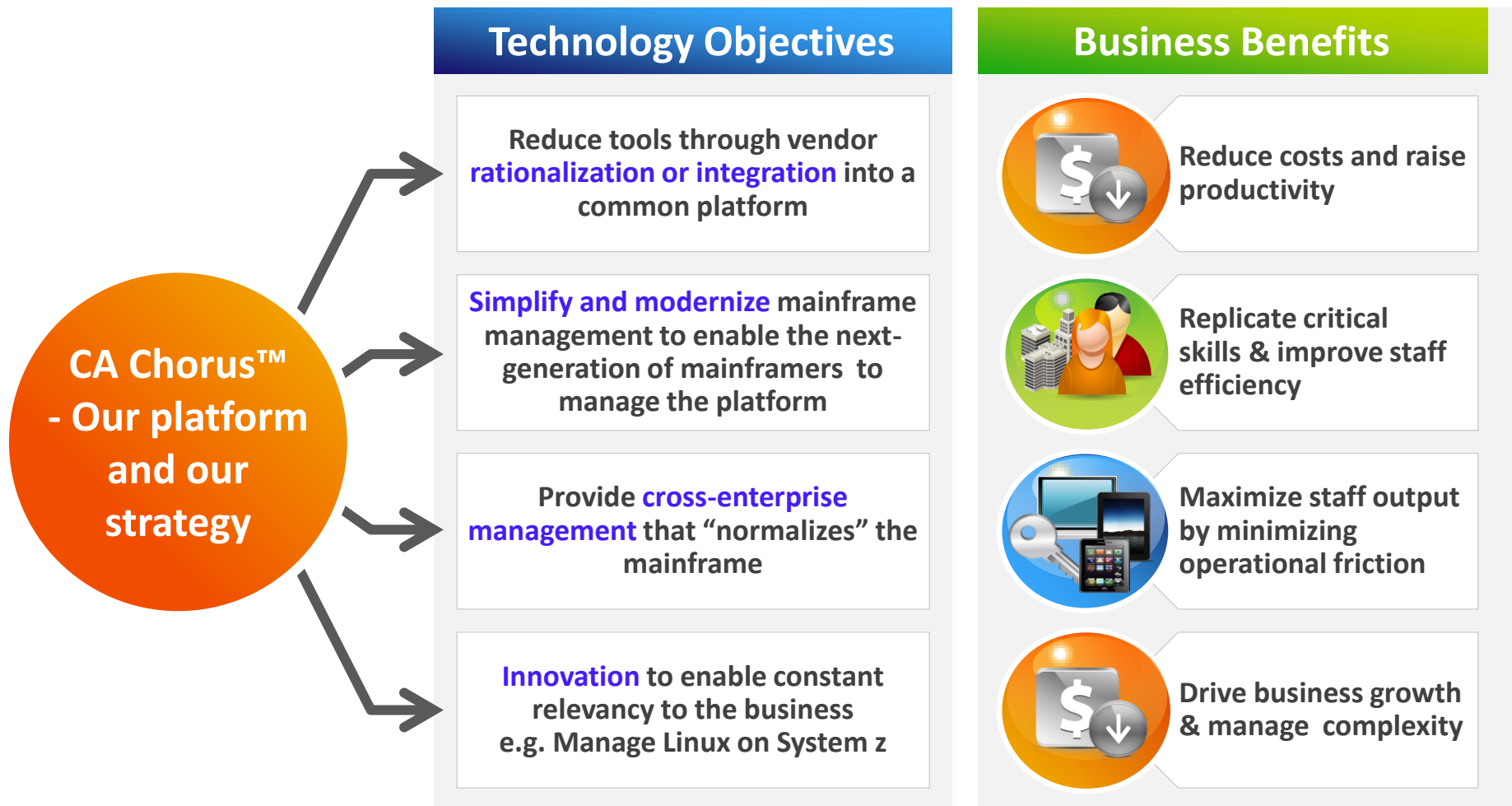


Innovation to increase productivity and knowledge transfer



Transforming IT Management

Managing the Dynamic Data Center



Introduction to the New Infrastructure Management Discipline

CA Chorus™ Infrastructure Management for Networks and Systems

Enterprise Health Monitoring → A policy driven consolidated view of many resources using color to depict status of those resources that are grouped via the policy.

System, Network , and Personalized Alert modules → Delivers interactive and actionable alert capabilities.

Interactive Problem and Diagnostic Tools → Capabilities combining normally disparate data into a cohesive diagnostic path, combined with status information and visual cues.

Consolidated Performance Reporting → Filtering, graphs, and the ability to export data to external sources.

Investigator Quick-link Web Navigation → New, dynamic, and actionable from resource level displays.

Enterprise Health Monitoring

Dashboards

- Simplifies problem identification, diagnosis, and resolution
- Improves productivity when navigating multiple systems
- Shareable – save as public so everyone can see
- New modules available for customization and personalization

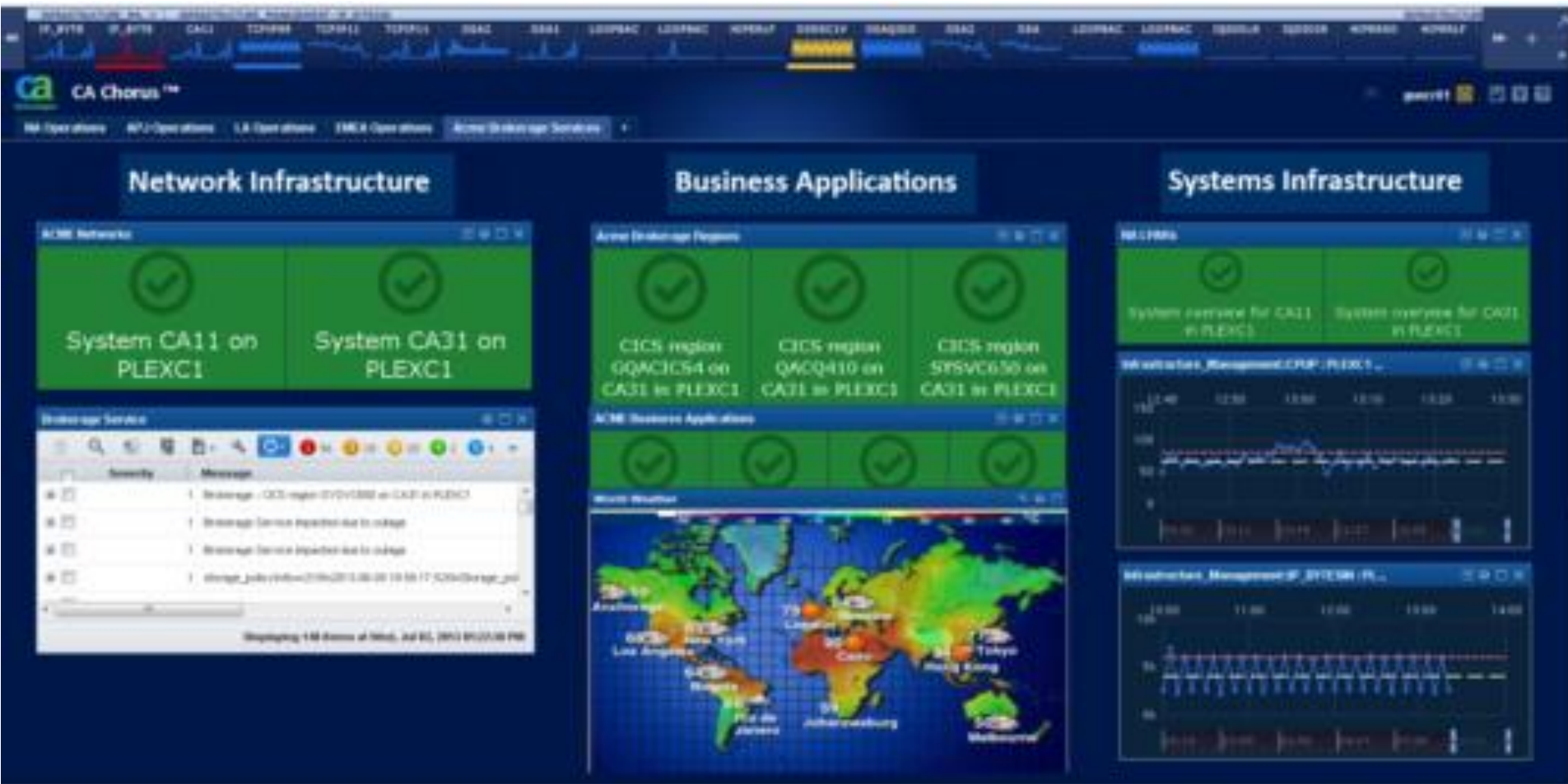
Traffic lights

- **Policy driven** - consolidated views of many resources using color to depict status of those resources that are grouped via the policy
- **Business views** – introduction of a new way to monitor the health of the mainframe IT infrastructure
- **Custom built** – multiple types of resources
- **Shareable** – Build once use many times

Metric Panels

- New network, systems information
- Customizable user set thresholds, identify anomalies that can increase costs

Enterprise Health Monitoring Dashboards



Interactive problem and diagnostic tools

Investigator Module

- Primary starting point for investigating and diagnosing problems
- Designed to service network, system, and DB2 resource activities
- Simplified access to all information from external infrastructure engines
- Ability to save detailed analysis paths for use or training less experienced personal
- Intuitive investigator tree – lists system and network objects by categories
 - Across enterprise – Subsystems, networks, DB2, SYSPLEX, etc
 - Network performance
- Secure Actionable Commands – visualization, operational

Time Series Integration

- Historical analysis

Topology visualization

- Graphical representation of resource relationships

Investigator Module – investigate TCP/IP connections

Save Path Clear Path

Infrastructure Management

Enter a search keyword

- Network
 - IP Activity
 - TCP Ports
 - TCP Tasks
 - TCP Connections
 - Business Applications
 - Remote Networks
 - Remote Addresses
 - UDP Ports
 - Infrastructure
 - IP Stacks
 - Network Interfaces
 - VIPA Interfaces
 - DB2 Distributed Data Facility
 - Enterprise Extender
 - Response Time
 - Network RTT

WebCenter Menu

Expand All | Collapse All

- Diagnostics
 - IP Diagnostics
 - IP Summary
 - IP Nodes
 - SNA Nodes
 - Telnet Connections
 - IP Connections
 - IP Stacks
 - VIPAs
 - CSM
 - Cisco Channel Cards
 - OSA Cards
 - Enterprise Extender
 - Address Spaces
 - Line Printers (LPD)
 - SmartTrace
 - File Transfer Diagnost
- Monitoring
 - Alerts
 - Resources
 - IP Resources
 - IP Nodes
 - FT Resources
- Performance Center
- History
- ReportCenter
- SYSVIEW
- Utilities

Application Summary

Packet and Byte Rates for Applications

Application Name: \$Bank-Retail

Packets/Second for \$Bank-Retail

Bytes/Second for \$Bank-Retail

Application Throughput (over last whole four minutes on date 12-AUG-2013 at time 01:15)

Application Name	Connections		Packets/Second			Bytes/Second				
	Active	%	In	%	Out	%	In	%	Out	%
\$Bank-Retail	43	23%	40.44	41%	61.88	51%	2652	13%	51214	62%
\$Bank-Rural	28	15%	9.77	10%	13.58	11%	1015	5%	15414	19%
CH-Atlas	32	17%	16.52	17%	18.53	15%	2762	14%	12345	15%
\$Bank-Web	25	14%	14.34	15%	13.35	11%	8802	44%	1220	<1%
CH-Leon	18	10%	3.163	3%	2.457	2%	1608	8%	213	<1%
CH-Eva	18	10%	3.163	3%	2.457	2%	1608	8%	213	<1%
SMTPMAIL	0	0%	1.647	2%	1.977	2%	492.8	2%	549.3	<1%
\$Bank-Loans	3	2%	0.33	<1%	0.75	<1%	20.16	<1%	677	<1%
\$Bank-Phone	8	4%	2.953	3%	2	2%	404.9	2%	175.6	<1%
\$Bank-ATM	0	0%	3.013	3%	2.143	2%	359.6	2%	196.1	<1%
\$Bank-Legal	1	1%	1.31	1%	1.41	1%	376.4	2%	148.4	<1%

Details for TCP Connection from [141.2...]

Traffic 1 Min Traffic 5 Min Job Activ

Bytes in, 1 minute ago

Bytes out, 1 minute ago

Bytes in, 2 minutes ago

Bytes out, 2 minutes ago

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About

Open Systems Adapter(OSA) displays

Infrastructure Management > Sysplexes > PLEXC1 > Open Systems Adapter (OSA)

Status	Notes	System	Stack	CHPID value	OSA Name	Device Type	CHPID Type	Interface sp...	Bytes
<input type="checkbox"/>		CA31	TCPP31	12	EZ6OSM01	OSA Ethernet	OSM	1000	
<input type="checkbox"/>		CA31	TCPP31V	12	EZ6OSM01	OSA Ethernet	OSM	1000	
<input type="checkbox"/>		CA31	TCPP31	13	EZ6OSM02	OSA Ethernet	OSM	1000	
<input type="checkbox"/>		CA11	TCPP11V	01	OSA	OSA Ethernet	OSD	1000	
<input type="checkbox"/>		CA31	TCPP31V	01	OSA	OSA Ethernet	OSD	1000	
<input type="checkbox"/>		CA11	TCPP99	00	OSA	OSA Ethernet	OSD	1000	
<input type="checkbox"/>		CA11	TCPP11	00	OSA1	OSA Ethernet	OSD	1000	
<input type="checkbox"/>		CA31	TCPP31	00	OSA1	OSA Ethernet	OSD	1000	
<input type="checkbox"/>		CA11	TCPP11	02	OSA2	OSA Ethernet	OSD	1000	
<input type="checkbox"/>		CA11	TCPP11V	02	OSA2	OSA Ethernet	OSD	1000	

Selected 1 item | Clear

Displaying 21 items at Mon, Dec 17, 2012 07:23:07 PM

Details for OSA Interface OSA2 Stack TCPIP11 on System CA11 PLEXC1

Investigator – seamless integration systems and network

Investigator - Mozilla Firefox
 ca11.9304/Chorus/chorusR2.html?id=123456789&locale=en

Save Path Clear Path

Infrastructure Management << Infrastructure Management > ... > PLEXC1 > CA11 > CICS >

Enter a search keyword

DB2 Performance
 Active Configuration
 Sysplexes
 PLEXC1
 Workload Manager Systems C
 Open Systems Adapter (OSA)
 Sysplex Distributor Targets
 CA11
 CICS
 CICS Regions
 CICS Exception Alerts
 Policies
 Statistics
 DB2
 IMS
 Network
 WebSphere MQ
 z/OS
 CA31
 Systems Summary

CICS Regions

Status	Notes	Sysplex	System	Jobname	ExecStage	Status	RowStat
<input type="checkbox"/>		PLEXC1	CA11	DIDECICS	EXECUTING	NOSTART	NONE
<input type="checkbox"/>		PLEXC1	CA11	DLV1C410	EXECUTING	NOSTART	NONE
<input type="checkbox"/>		PLEXC1	CA11	DLV1C420	EXECUTING	NOSTART	NONE
<input type="checkbox"/>		PLEXC1	CA11	GQACICS4	INACTIVE	NONE	NONE
<input type="checkbox"/>		PLEXC1	CA11	QACQ410	EXECUTING	ACTIVE	NORMAL
<input type="checkbox"/>		PLEXC1	CA11	QACQ420	EXECUTING	ACTIVE	NORMAL
<input checked="" type="checkbox"/>		PLEXC1	CA11	QACX410	EXECUTING	ACTIVE	NORMAL
<input type="checkbox"/>		PLEXC1	CA11	QACX420	EXECUTING	ACTIVE	NORMAL
<input type="checkbox"/>		PLEXC1	CA11	QACX510	INITIAL-2	NONE	NONE
<input type="checkbox"/>		PLEXC1	CA11	SYSVC670	INACTIVE	NONE	NONE
<input type="checkbox"/>		PLEXC1	CA11	SYSVC680	INACTIVE	NONE	NONE
<input type="checkbox"/>		PLEXC1	CA11	P\$OMC41T	EXECUTING	NOSTART	NONE

Selected 1 item Clear

Displaying many items at Mon, Dec 17, 2012 07:10:12 PM

Details for CICS region QACX410 on CA11 in PLEXC1

Degradation on Sys Interval Degradation Alerts Active Tasks Hourly Activity Transactions on Sys Interval Transactions Connections Sockets TCP Activity TCP Connections Perfo

Status	Notes	Sysplex	System	Jobname	Resource	Average	Pct%	Total	Metric
--------	-------	---------	--------	---------	----------	---------	------	-------	--------

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Actions

- Add Entry to Time Series
- Add to Topology Viewer
- Show degradation analysis on sys
- Show degradation analysis
- Show exception alerts
- Show active tasks
- Show activity in hourly intervals
- Show activity in 5 minute intervals
- Show transaction summary on sys
- Show transaction summary
- Show connections status
- Show socket listener services
- Show TCP activity
- Show TCP connections
- Show threshold policies
- Show state policies

Investigator Module – Investigate a DB2 Subsystem

The screenshot displays the CA Investigator Module interface. The main content area shows the **Subsystem Traffic Summary** for system **CA11**. The **Execute** button is visible. The **Subsystem Traffic Summary Results** section contains two charts:

- Subsystem Summary for CA11**: A 3D pie chart showing traffic distribution. The legend indicates: DB2 - 1192k <1%, CICS - 0 0%, IMS - 0 0%, MQ - 0 0%, and Other - 676M >99%.
- DB2 Address Spaces**: A 3D pie chart showing the distribution of DB2 address spaces. The legend indicates: D918DIST - 1192k >99% and DB0GDIST - 312 <1%.

The **WebCenter Menu** on the left includes sections for **Diagnostics**, **Monitoring**, **Performance Center**, **Network**, **History**, **SYSVIEW**, and **Utilities**. The **Performance Center** section is expanded, showing various monitoring tools like **IP Growth Tracker**, **Subsystem Traffic Summary**, **EE Traffic Summary**, **Enterprise Extender**, **Performance Data Manager**, **IP Stacks**, **Business Applications**, **Telnet Applications**, **FTP Users**, **Home Addresses**, **Stack Network Interface**, **Ports**, **IP Nodes**, **OSA Cards**, **Cisco Channel Cards**, **VIPA**, **Address Spaces**, and **CSM**.

The **Details for DB2 subsystem** pane at the bottom left shows **TCP Activity** and **TCP Connections** tabs, with a table for **Notes** and **Agent ID**.

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Proactively monitor and investigate performance issues

Topology – Status Information

The screenshot displays a network topology viewer interface. The main content area shows a hierarchical tree structure:

- System CA11 on PLEXC1** (Yellow box) → **IP Stack (6)** (Grey box)
 - IP Stack Name NMDTCPJH on System CA11 ...
 - Business Application (30)** (Red box) → TCP Business Application on steveT on System...
 - IP Stack Name TCPIP11 on System CA11 ...
 - IP Stack Name TCPIP11E on System CA11 ...
 - IP Stack Name TCPIP11V on System CA11 ...
 - IP Stack Name TCPIP99 on System CA11 ...
 - IP Stack Name SNSWILMA on System CA11 ...
- TCP Business Application on CH-Atlas on Syst...**
- TCP Business Application on CH-Demeter on Sy...**
- TCP Business Application on CH-Eva on System...**
- TCP Business Application on CH-Hellos on Sys...**
- TCP Business Application on CH-Kimon on Syst...**
- TCP Business Application on CH-Leon on Syste...** (Red box)
- TCP Business Application on CH-Nike on System...**
- TCP Business Application on CH-Zeus on Syste...**
- TCP Business Application on EE SNA on IP on ...**
- TCP Business Application on FTP on System CA...**

At the bottom, a status bar reads "Details for System CA11 on PLEXC1".

Interactive Problem and Diagnostic Tools

Time Series Facility – Flexible Time Analysis

[Save Path](#)
[Clear Path](#)

Time Series

CA11: Sysplex(PLEXC1) System(CA11) [Contributors](#)

ZOOM: 1D 1W 1M 6M 1Y ALL [Latest Recorded](#) From: May 31 2013 2:15 AM To: May 31 2013 12:25 PM CA11

ZOOM: 1D 1W 1M 6M 1Y ALL [Latest Recorded](#) From: May 30 2013 2:15 AM To: May 30 2013 12:25 PM CA11

Chart Tools

[Perform Charting](#)
[Remove Entity](#)

Entities

Enter a search keyword

- CA11

Metrics

Enter a search keyword

- ASITSO
- CECCPUP
- JESSTGP
- MSU4HAVG
- MSU4HPCT
- PAGERATE
- PAGSLOTP
- STGAFQA

System, Network , and Personalized Alert modules

System and Network Alerts

- New alert modules/types for selection
 - z/OS, CICS, Network
- Filtering capabilities - pick and chose what is meaningful to you
- Charting – chart severities and other data important to you
- Export capabilities
- Actions
 - Extended details
 - Drive Investigator analysis

Personalized Alerts

- Customizable alerts to focus on specific target area of interest to your area of responsibility

System and Network Alerts

[Click here to configure the Metrics panel.](#)

CICS Alerts

1 11 2 40 3 0 4 0 5 0 New(0)

Notes	Severity	Time	Message
	1	Mon Aug 12 08:59:00 GMT-400 2013	CA11 DBDVI
	1	Mon Aug 12 04:23:00 GMT-400 2013	CA11 DBDVI
	1	Mon Aug 12 04:27:00 GMT-400 2013	CA11 DBDVI
	1	Mon Aug 12 09:50:00 GMT-400 2013	CA11 DBDVI
	1	Mon Aug 12 09:50:00 GMT-400 2013	CA11 DBDVI

Displaying 51 items at Tue, Aug 13, 2013 10:15:31 AM

z/OS Alerts

1 22 2 14 3 32 4 0 5 0 New(0)

Notes	Severity	Time	Message
	1	Mon Aug 12 22:52:01 GMT-400 2013	CA11 Real st
	1	Tue Aug 13 05:46:00 GMT-400 2013	CA11 E-CSA
	1	Tue Aug 13 06:10:00 GMT-400 2013	CA11 VOs pe
	1	Tue Aug 13 06:04:00 GMT-400 2013	CA11 Real st
	1	Mon Aug 12 17:48:00 GMT-400 2013	CA11 VOs pe

Displaying 67 items at Tue, Aug 13, 2013 10:15:30 AM

Network Alerts

1 1 2 4 3 2 4 0 5 0 New(0)

Notes	Severity	Message
	1	Link from NMQA1511 to NMQA1431 inactive
	2	STACK (OSX14A): ifStatusOper is Down
	2	STACK (OSX15A): ifStatusOper is Down
	2	ASMON (TCP31-TCP(5254)): PortStatus is UNKNOWN
	2	ASMON (TCP31V-TCP(5254)): PortStatus is UNKNOWN

Displaying 7 items at Tue, Aug 13, 2013 10:15:32 AM

Personalized Alerts - Your Choice

1 1019 2 391 3 127 4 3186 5 0 >>

Notes	Severity	Time Stamp	Message
	1	Tue May 21 02:57:33 GMT-400 2013	D-25671
	1	Tue May 21 02:57:33 GMT-400 2013	D-25671
	1	Fri Apr 05 12:16:59 GMT-400 2013	Sanjeev Te
	1	Tue May 21 02:57:33 GMT-400 2013	D-25671
	1	Tue May 21 02:57:33 GMT-400 2013	D-25671

Displaying 4723 items at Tue, Aug 13, 2013 10:15:30 AM

Personalized Alerts – what's important to you?

The screenshot displays the CA Chorus interface with several components:

- Top Bar:** "INFRAStructure MANAGEMENT::CPU" with filters for IIP, IFA, CP, and ALL. The CA Chorus logo and "Operations Overview" are also visible.
- Trading Services Alerts:** A table with columns for Notes, Severity, and Message. It shows four entries with a severity of 1, all stating "TradingServ Networks experiencing possible impact". To the right, a personalized alert card for "Trading Services" features a yellow bell icon for "TradingServices Network" and a green checkmark icon for "Trading Services Applications".
- Call Center Alerts:** A table with columns for Notes, Severity, and Message. It shows three entries with a severity of 1 (stating "Call Center Network possible impact on services, im") and one entry with a severity of 2 (stating "Chorus has detected high CPU for Call Center applic"). To the right, a personalized alert card for "Call Center" features yellow bell icons for "Call Center Database" and "Call Center Network", and a green checkmark icon for "Call Center - Applications".
- Email (Outlook Web App):** Shows an inbox with several messages from "gousa01@ca.com" with subject lines like "Call Center DB maybe be experiencing..." and "TradingService is experiencing Networ...".
- Bottom Bar:** "Module Library" and "Copyright © 2013 CA. All rights reserved."

Consolidated Performance Reporting and Quick-link Web Navigation

Consolidated Performance Reporting

- Filtering, new graphs, and the ability to export data to external sources
- Export data from visible tabular-columns to CSV file structures
- Generate Reports

Investigator QuickLink Web Navigation

- New, dynamic, and actionable from resource level displays.
- Create your own QuickLinks module to manage various tasks or house data
- Web Application Module – add your own web application to dashboards; e.g., Weather, News, etc.

Integration – extending the power

Deep analysis

Knowledge Center

The screenshot displays the CA Network Management interface. The top window shows 'OSA Card Performance (NMQA1511) - CA Network Management - Mozilla Firefox'. Below it, the 'OSA Card Performance Results' table is visible with columns for Graph Attribute, Qualifier, Attribute Name, Samples, Sample Interval, Last Sample Time, Last Sample Value, Last Sample Rate/Hour, Last Sample Rate/Second, Last Summary Start Hour, Last Summary Value, Alerts Open, and Max. Sev. The table lists several entries for 'RMFChp%UHBue' and 'RMFChp%'. Below the table, the 'NetMaster® - NMQA1511' interface shows a 'WebCenter Menu' on the left and a 'System Summary for CA11' in the main area. The system summary includes sections for 'System Protocol Usage', 'IP Throughput', 'Application Summary', 'TCP Server Port Summary', 'Home Address Summary', 'EE Traffic Summary', 'Remote Network Summary', and 'Protocol Details'. A 'Graphical Representation of Distribution' chart shows protocol usage for TCP, UDP, ICMP, OSPF, and Other. The bottom window shows the 'Knowledge Center' article 'How to Configure Your Dashboard', which includes a flowchart and a list of tasks to complete.

OSA Card Performance Results Table:

Graph Attribute	Qualifier	Attribute Name	Samples	Sample Interval	Last Sample Time	Last Sample Value	Last Sample Rate/Hour	Last Sample Rate/Second	Last Summary Start Hour	Last Summary Value	Alerts Open	Max. Sev.
<input checked="" type="checkbox"/>		RMFChp%UHBue	13	15	17-Dec-2012 10:21	0	n/a	n/a	18:00	0	0	
<input checked="" type="checkbox"/>		RMFChp%										

System Summary for CA11:

Stack	IP	Packets/Second	Bytes/Second	Connections
Stack TCP/IP11 (6 interfaces)		280.6	180K	471
Stack TCP/IP11 (3 interfaces)		493.2	182K	3
Stack TCP/IP22 (3 interfaces)		0.16	10.16	0
Most Active Application (OS-Relos)		61.87	49619	3%
Most Active TCP Server Port	11304	58.78	49429	3%
Most Active Remote Network	141.202.65.11	243.9	163K	44%
	141.202.4	471.9	161K	40%

Graphical Representation of Distribution:

Stack	TCP	UDP	ICMP	OSPF	Other
TCP/IP11	>99%	<1%	<1%	0%	0%
TCP/IP11	<1%	>99%	<1%	0%	<1%
TCP/IP22	0%	56%	44%	0%	0%

How to Configure Your Dashboard:

CA Chorus Infrastructure Management administrators can customize a dashboard to monitor performance data. Doing so simplifies problem diagnosis and resolution, which improves productivity when navigating multiple systems. This scenario explains how a Performance Analysts configure a dashboard after initial login.

The following illustration shows how network and systems administrators configure their dashboard:

How to Configure Your Dashboard

```
graph LR
    A[Configure Your Dashboard] --> B[Configure User Preferences]
    B --> C[Launch and Customize the Investigator]
    A --> D[Optional Configure TextBoxes]
    D --> E[Configure Metrics Panel]
    E --> F[Configure the Knowledge Center]
    D --> G[Optional Share Your Dashboard]
```

Complete the following tasks to configure your dashboard:

1. [Configure Your Dashboard](#)
2. [Configure User Preferences](#)



Q&A

agility
made possible™



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