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# S H A R E

#### **Abstract**

Are you asked to do more with less? Tivoli continues to add capability to help you proactively analyze and manage your CICS subsystems across your Enterprise.

OMEGAMON XE for CICS on z/OS v5.1.0 introduces realtime CICSplex monitoring that can make it easier and faster to track down potential and actual outages. This session will show how the new e3270ui, introduced in OMEGAMON XE for CICS on z/OS v5.1.0, can improve your system availability and simplify CICS monitoring, management and problem solving.

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#### But first...



- The new release GA'd on March 9<sup>th</sup> 2012, and is available for immediate delivery!
- And, as always, please ask questions.
  - · Ask them as we go,
  - · Ask them at the end,
  - · But ask them!



### OMEGAMON XE for CICS on z/OS v5.1.0 - Product Overview



- The new release was built using extensive input from Customer Advisory Councils in Europe and North America, Early Adopter Program meetings etc.
  - We talked to a LOT of customers over the last couple of years.
- Problem solving customers were asked to identify their most common problems, and scenarios which would solve them were developed.

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### OMEGAMON XE for CICS on z/OS v5.1.0 - Product Overview



- Three main features were implemented
- An enhanced 3270 user interface (e3270ui)
  - CICSplex monitoring and reporting
  - Self Describing Agents (SDA)
- This presentation is focused on the new e3270ui but we will look at some TEP changes where appropriate.



### OMEGAMON XE for CICS on z/OS v5.1.0 - Product Overview



- In addition to the existing CUA, TEP and Menu System interfaces, an enhanced 3270 user interface (e3270ui) is made available in this release.
- V5.1.0 is phase one of an extensive re-architecting. Not all features are available in the new user interface.
- Most of the re-architecting is supported by code that is running in a new address space.
  - The new STC manages data collection and presentation, which we will be looking at over much of the next hour.

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### OMEGAMON XE for CICS on z/OS v5.1.0 – Product Overview



- CICSplex monitoring has been requested for years by a number of large customers.
- So, what is a CICSplex ?
  - A number of CICS regions which the customer wishes to monitor and manage as a single entity.
  - A CICSplex can contain one or more CICS regions, and they can span LPARs/Sysplexes
  - Typical CICSplex groups might be Test/Production, or Payroll apps/Accounting apps. . . .
- Why monitor (report) at the CICSplex level ?
  - Increasingly complicated applications can span multiple CICS regions, and issues such as this are common; 'Our users log onto CICS and often have no clear idea which CICS region they logged on to. Because they work through a menu system they sometimes don't even know which transactions they are executing. All they know is their user name. We need a way to find out what that user is doing right now. . . '

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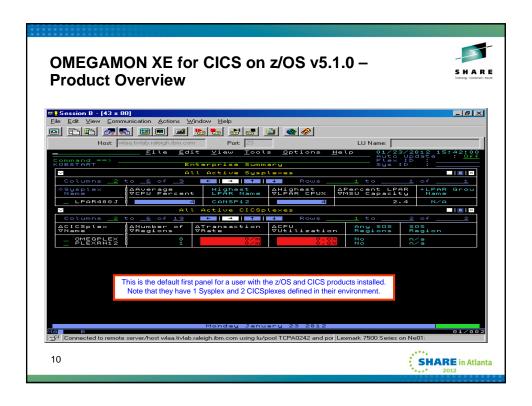
### OMEGAMON XE for CICS on z/OS v5.1.0 - Product Overview

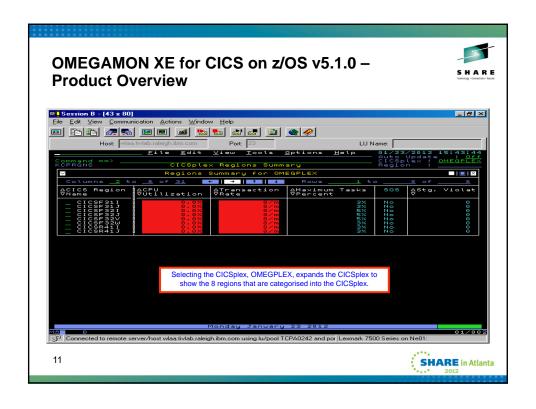


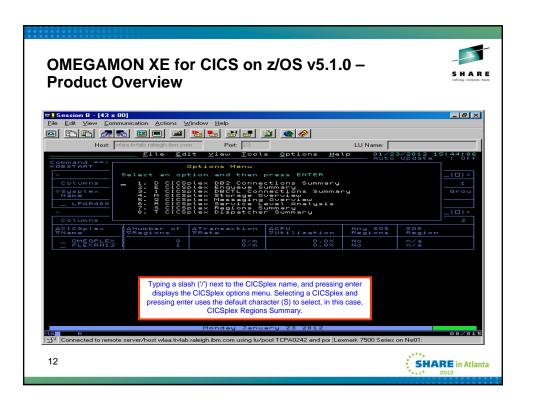
- Why monitor (report) at the CICSplex level ?
  - Monitoring the response time of an application which might span multiple CICS regions is complicated. CICSplex monitoring offers our customers a means of showing the response time of a transaction (or a service class, or an application) regardless of how many CICS regions contributed to that transaction's response time.
- What does it look like?
  - The next few slides show a couple of aspects of CICSplex monitoring.

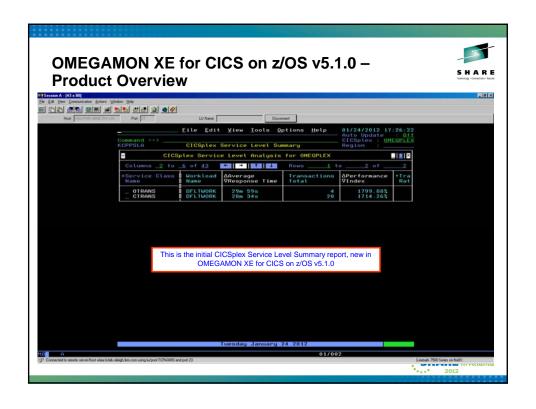
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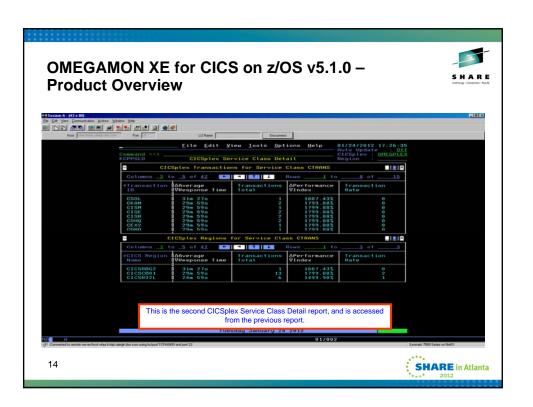


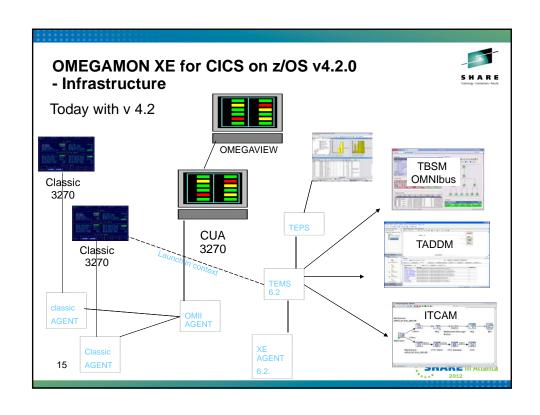


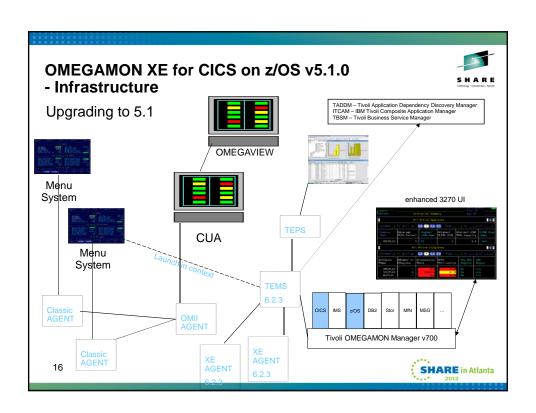


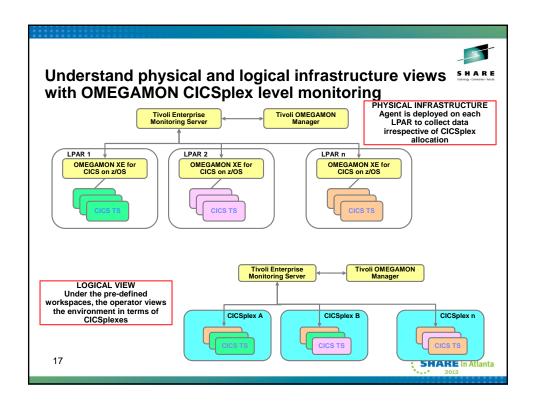


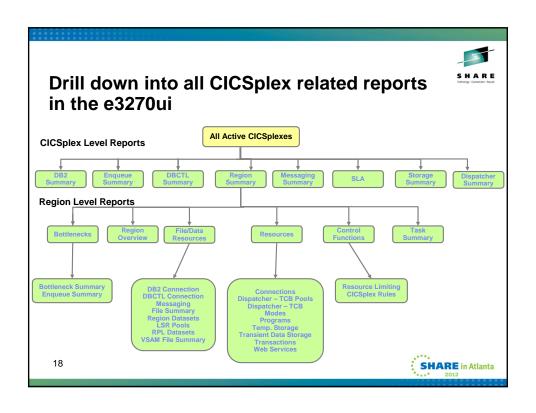










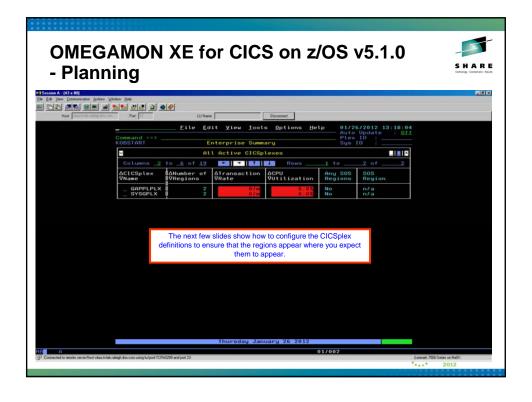


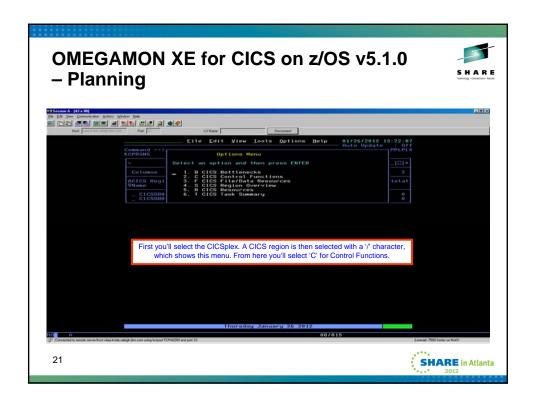
# OMEGAMON XE for CICS on z/OS v5.1.0 – Planning

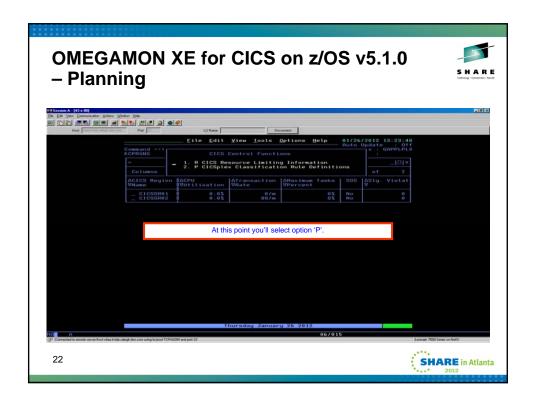


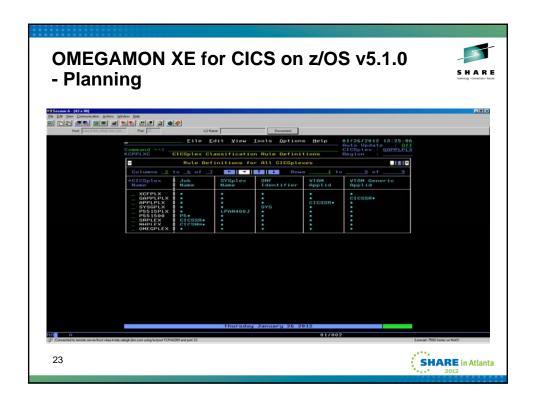
 As mentioned earlier, one of the primary focus areas of the new release was CICSplex monitoring. So the first question is how do we define a CICSplex to the new product?

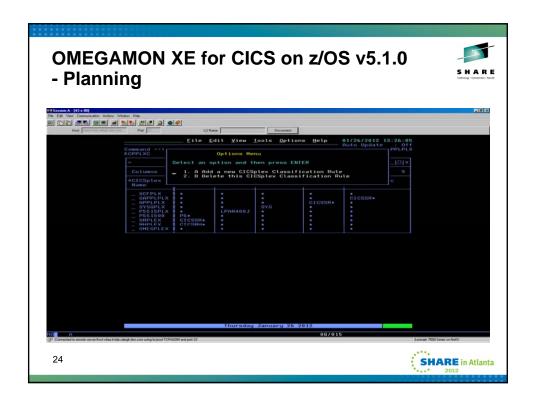


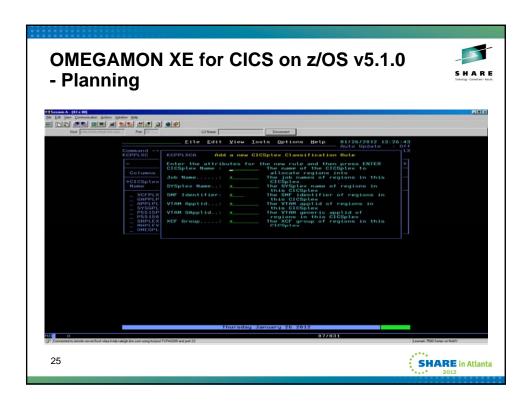














- The rules allows you to classify regions into CICSplex groups.
  - A default of OMEGPLEX is provided, and cannot be deleted
  - If you have classified your regions using CPSM we will honor the CPSM classification if you do not provide a rule that would result in the classification of the CICS region into one of our CICSplexes.
  - If you want to honor the CPSM definitions you need add no new rules.





- The classification of a region into a CICSplex results in the creation of a managed system list by the ITM framework.
- The MSLs, with a name of KCP\_CICSplex\_plexname allows queries to be distributed to the correct target(s).

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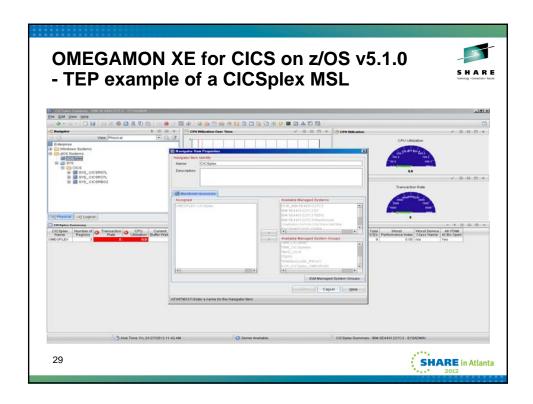


# OMEGAMON XE for CICS on z/OS v5.1.0 - CICSplex



- There is a new agent KCEAGENT which is started in every CICS agent address space.
- The agent waits until there is a CICS region to register to ITM.
- When CICS comes online a task will check if the CICSPlex it belongs in is also online. If not the KCEAGENT registers the new CICSplex with the ITM framework.
- The KCEAGENT may register multiple CICSplexes.
- If the CICSplex is online the task will send a request to the KCEAGENT that it needs to include this CICS agent in its processing.

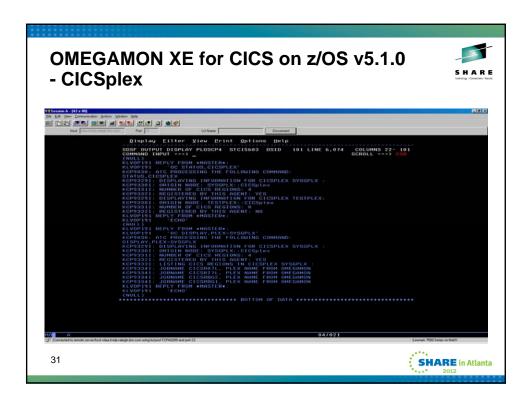






- There are a couple of new commands, which are issued against the agent, which allow you to display registered CICSplex(es), and the regions associated with a selected CICSplex.
  - /F agentSTC,OC STATUS,CICSPLEX
  - /F agentSTC,OC DISPLAY,PLEX=plexname
- These commands allow you see what was defined, and what the results of those definitions are.

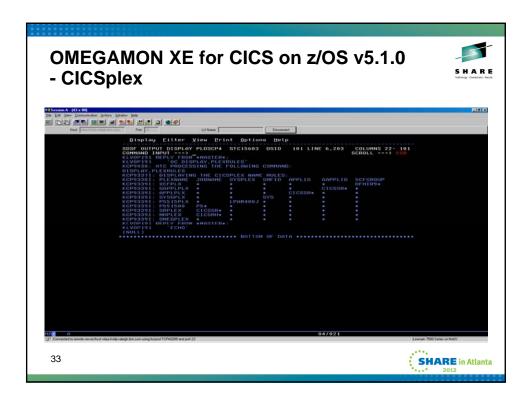






- This new command allows you to display the rules specified by the e3270ui user;
  - /F agentSTC,OC DISPLAY,PLEXRULES
- The classification rules are added via a take action command, which can be seen in the CANSTOM's log
- All of the take action commands issued from the e3270ui can be protected using your standard security. There is an appendix which describes the security options in the Planning and Configuration guide.

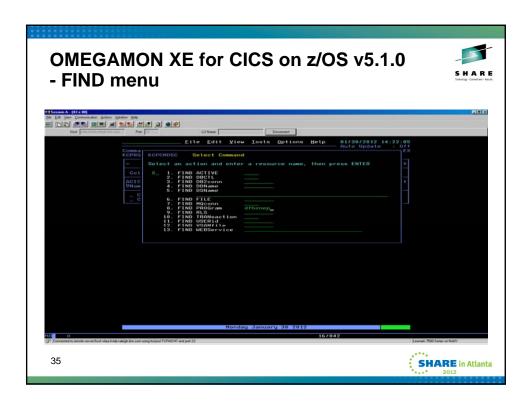


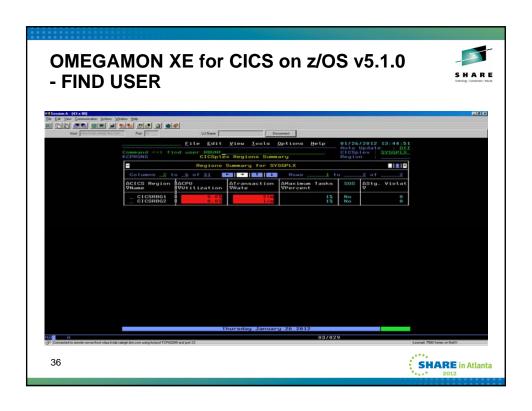


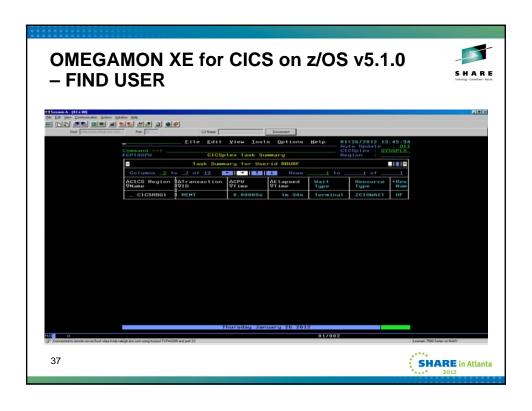
### OMEGAMON XE for CICS on z/OS v5.1.0 - FIND

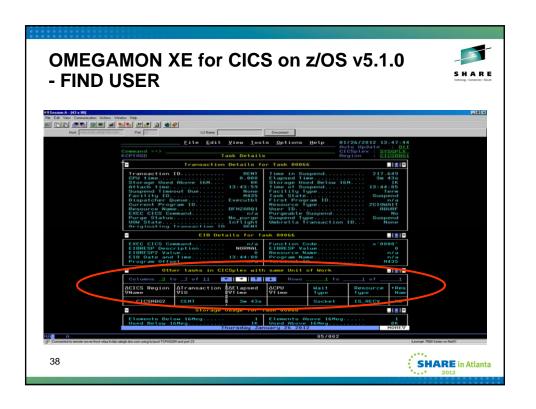


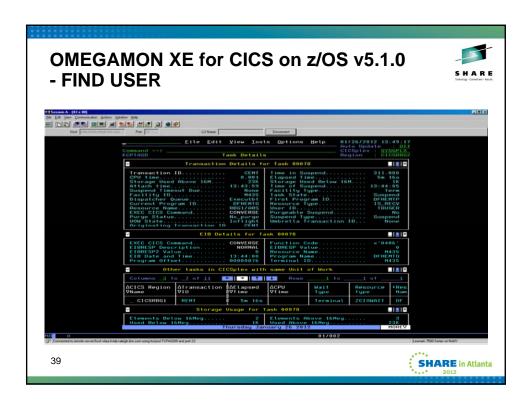
- The FIND command was developed to solve a couple of problems that users had raised:
  - The logged on user who is 'doing something' in the CICS environment, but has no idea which region they logged onto.
  - The customer who has tens of thousands of object definitions, for example programs, and wants to see all occurrences of an individual program across the CICSplex.
  - FIND is different from the filtering option implemented in the e3270ui. The CICS implementation of filtering requires that the user request a report and then apply the filter, which works well for generics, but if they know which object they are interested in FIND is probably faster.

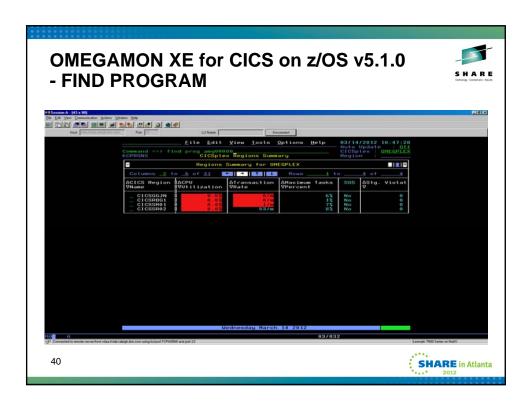


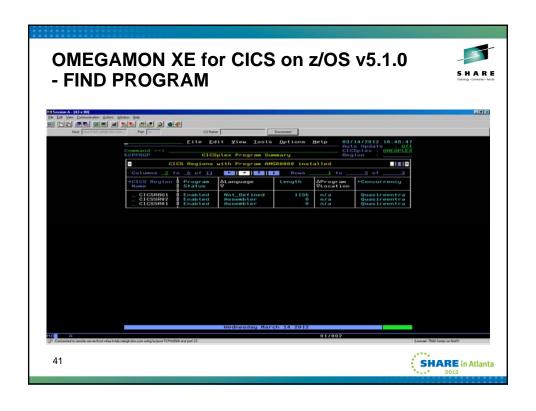


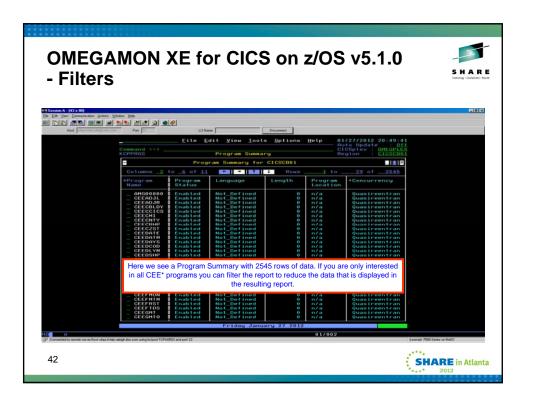


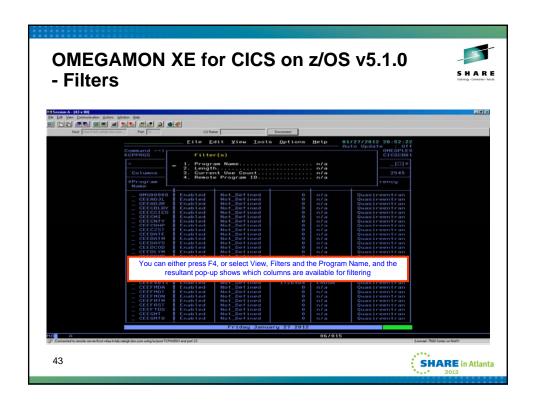


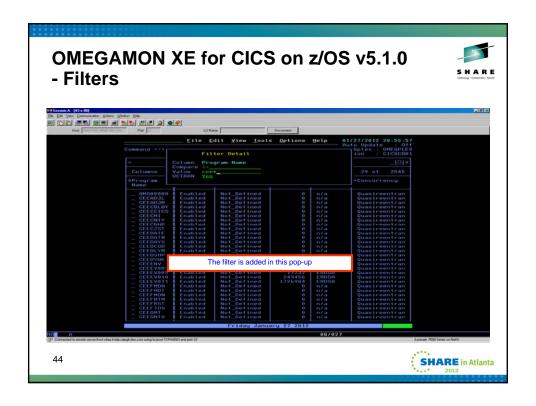


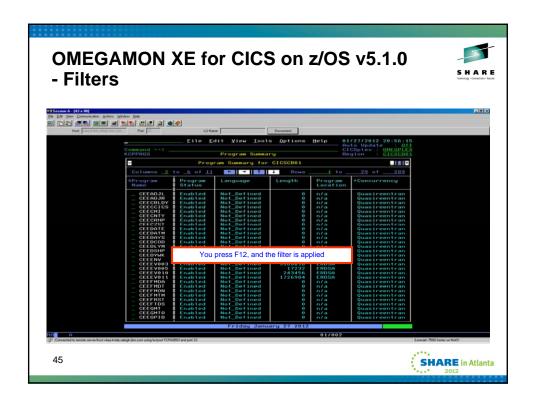










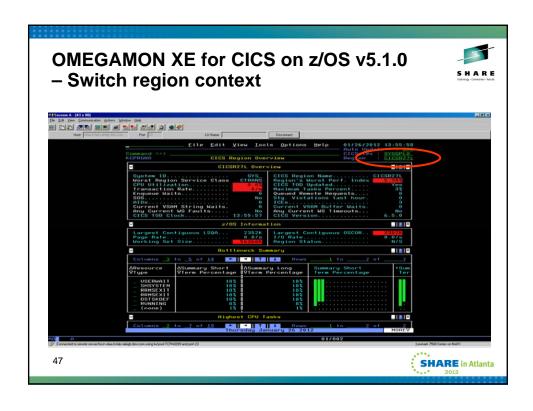


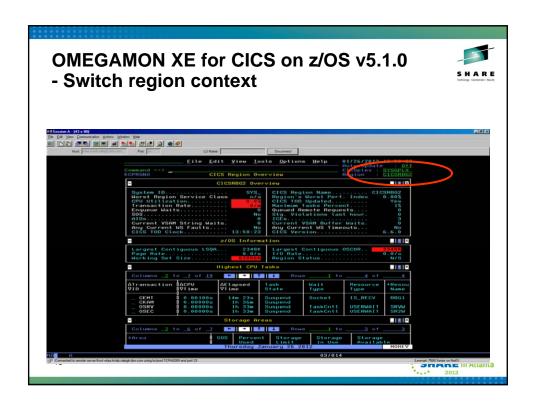
## OMEGAMON XE for CICS on z/OS v5.1.0 - Filters

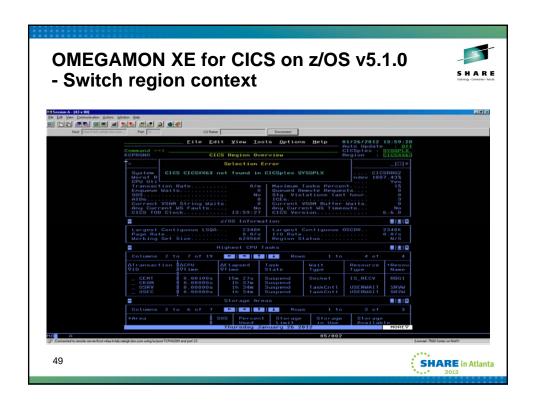


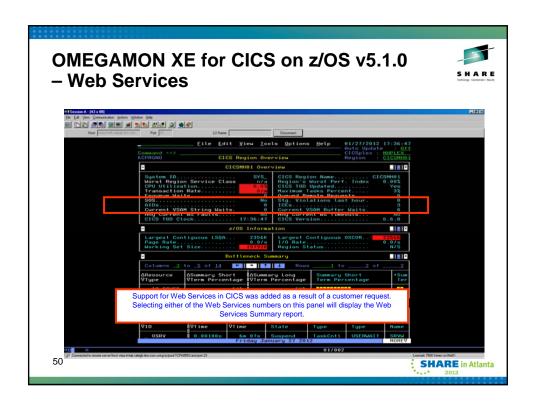
 Don't forget to delete the filters when you have finished with the report – otherwise the next time you use that report you may find that the same filters are in place, and the results may not be what you expected!

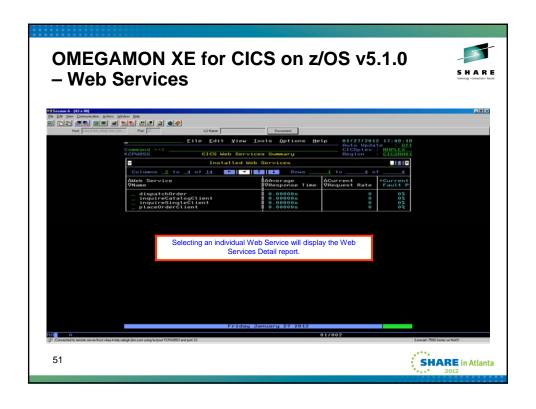


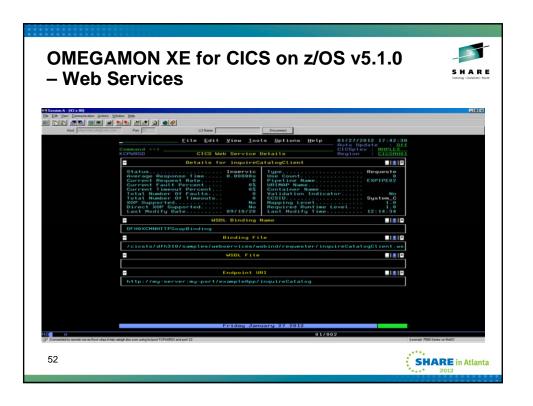


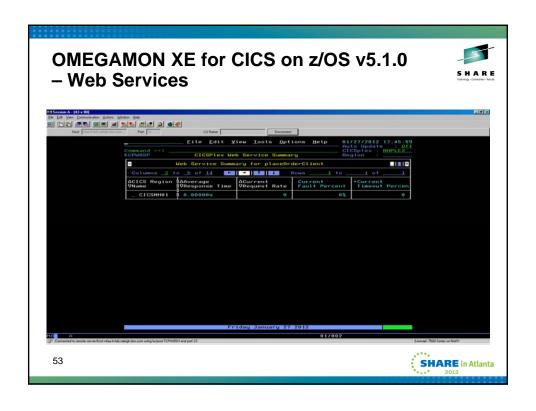


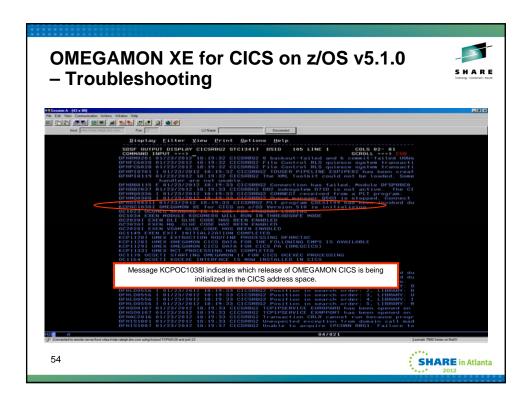


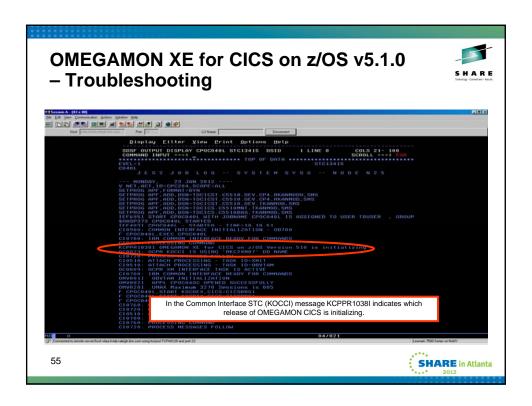










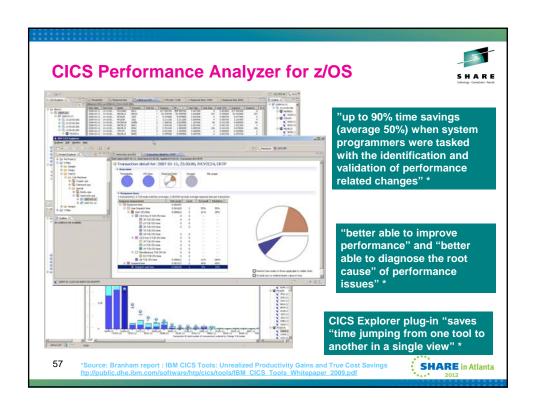


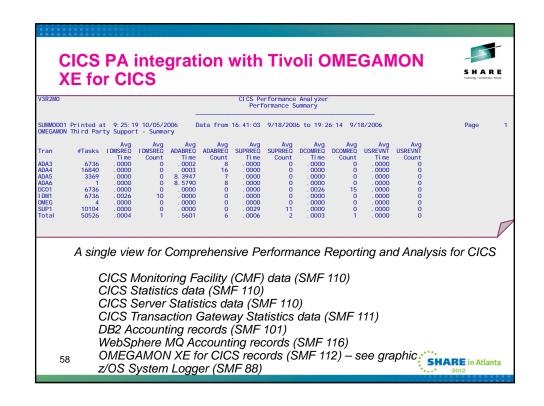
#### The CICS performance solution from IBM

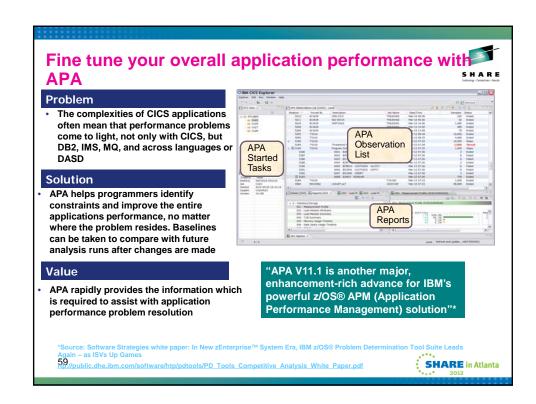


- IBM Tivoli OMEGAMON XE for CICS on z/OS V5.1
  - · Performance Analysis in Real time
  - Solve problems while they impact the systems
  - · Near Term History and Summarization
- IBM CICS Performance Analyzer for z/OS V3.2
  - Performance Analysis for day-to-day CICS tuning, threadsafe analysis, service-level reporting, accounting/chargeback, and problem determination
  - Solve today's problems and plan for tomorrow's capacity usage
- IBM Application Performance Analyzer for z/OS V11.1
  - Performance Analysis to isolate application performance problems and test the effect of increased workloads.
  - Solve problems before deploying new or changed applications









### OMEGAMON XE for CICS on z/OS v5.1.0 – Additional resources



- Additional information can be found at these sites.
  - OMEGAMON XE for CICS on z/OS v5.1.0 'how to' viewlets
    - http://www.youtube.com/ismconnect
    - http://www.youtube.com/playlist?list=PL6F3B36B880D5D382&feature=plcp
    - Ed Woods' blog, "Tivoli with a z" has an introduction to the e3270ui
    - <a href="http://tivoliwithaz.blogspot.com/">http://tivoliwithaz.blogspot.com/</a>
    - The Integrated Service Management Library (ISML) has samples for RTA2SLA and Epilog
      - http://www.ibm.com/software/ismlibrary?NavCode=1TW10OM1L
      - http://www.ibm.com/software/ismlibrary?NavCode=1TW10OM1M



#### To summarise



- Product overview
- Infrastructure
- Planning
  - · CICSplex monitoring
  - Configuring CICSplexes
- · Usage scenarios
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- Troubleshooting
- OMEGAMON XE for CICS on z/OS v5.1.0 as a part of the IBM CICS solution
- · Additional resources; viewlets, blog and OPAL

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#### **OMEGAMON XE for CICS on z/OS v5.1.0**



• The end – any questions?





#### **Appendices**

 The following slides contain information which is beyond the scope of the presentation, but which may be beneficial to you when planning for the new release.

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# **OMEGAMON XE for CICS on z/OS v5.1.0 - Planning**



- Supports CICS/TS v3.1 CICS/TS v4.2
- Supports CICS TG v7.0 v8.1
  - Websphere Application Server v6.1 v8.0
- Supports z/OS v1.11 v1.13
- Supports all GA releases of DB2, IMS and Messaging subsystems.
- The product has a new PID, which customers will need if they want to open a service request, it is 5698-T07



## OMEGAMON XE for CICS on z/OS v5.1.0 – Planning



- SMP/E package includes all required FMIDs.
  - OMEGAMON XE for CICS on z/OS v5.1.0
  - OMEGAMON XE for CICS TG on z/OS v5.1.0
  - End-to-End v5.6.0
  - OMNImon Base v7.0.0
- IBM Tivoli Management Services on z/OS V6.2.3 (5698-A79)
  FMID is a separately orderable prerequisite of our product package.
  - zOS SMPE installation requirements: 5698-A79 IBM Tivoli Management Services on z/OS V06.02.03 or higher is required. However, IBM Tivoli Monitoring Version 6.2.3 Fix Pack 1 (6.2.2-TIV-ITM-FP0001) or higher is recommended.

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# OMEGAMON XE for CICS on z/OS v5.1.0 - Planning



- Refer to the Recommended Maintenance Technote 1290883
  - http://www-01.ibm.com/support/docview.wss?uid=swg21290883
    - and the product PSP for any additional PTFs that may be required during product installation.
- Distributed Application Support image deliverables:
  - LCD7-5139 IBM Tivoli OMEGAMON Application Support Files for z/OS V5.1.0 DVD
  - LCD7-5138-00 IBM Tivoli OMEGAMON XE z/OS V5.1.0 Language Pack CD-ROM
- DVD Prereg and Distributed TEMS:
  - IBM Tivoli Monitoring (ITM) Version 6.2.3, then ITM V6.2.3 fix pack 1 (6.2.3-TIV-ITM-FP0001) or higher is required.



## OMEGAMON XE for CICS on z/OS v5.1.0 - Planning



- The revised OMEGAMON QuickInstall Guide should be the first document that the customers read!
- The OMEGAMON v510 consolidated image and the ITM623 Fix pack 1 will not be available on physical media until April 6, 2012:
  - ITM623 fixpack 1 should be obtained from Fix Central until April 6, when it is available in Fulfillment.
  - The V510 Consolidated image: LCD7-5139, should be obtained from the application support files IBM support site server. Refer to technote #1255545, "Locating ITM Workspace Application Support Files for z/OS Agents". It will be available for download on March 9, 2012 (GA).
  - Note: If SDA is enabled for adding application support, you do not have to download or install the v510 Consolidated image, unless you want to install OMEGAMON DE, the TEP Desktop or the sample BIRT/TCR reports.
- The products included on the OMEGAMON V510 Consolidate image no longer contains any metafiles or platform specific files such as RKCPDEFW.

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## OMEGAMON XE for CICS on z/OS v5.1.0 - Planning



- · Hub installation considerations:
  - Hub TEMS on z/OS If OMEGAMON CICS and your Hub TEMS are not installed in the same CSI (a consolidated CSI is recommended), you must install UA62353 and UA63362 prior to connecting the OMEGAMON XE for CICS v510 agent to the Hub TEMS
  - Hub TEMS on a distributed platform Regardless of whether you are using SDA for application support seeding or not, you must install ITM623 FP1 prior to connecting your OMEGAMON XE for CICS v510 agent to the distributed Hub TEMS
- Hub TEMS on a unix or linux platform you can ignore message: "KCIIN2463W Warning: This installation media does not contain any components which can be run on the current system platform architecture. To install components which can run on this system, please locate the installation media containing files similar to platform>.jar. If you are installing application support, continue with the installation to see a list of support files."



#### OMEGAMON XE for CICS on z/OS v5.1.0 -**Planning**



- SDA install requirements for OMEGAMON XE for CICS
  - To support SDA processing for pristine or new installs, we have moved the allocation of the RKCPDEFW file from the CICS agent configuration into the Hub TEMS agent installation on distributed and zOS.
    - ITM623 FP1 contains the support and delivery of the RKCPDEFW with the distributed Hub TEMS
    - APAR OA37631 PTF UA62353 for FMID HKDS623 Configuration updates
- APAR OA37475 PTF UA63362 for FMID HKLV623 ITM623 SDA error



#### OMEGAMON XE for CICS on z/OS v5.1.0 -**Planning**



- There are no features of the existing v4.x.0 release that have been 'removed' with the exception of the CICS EPILOG reporter.
  - CICS Performance Analyzer is the preferred reporting option for OMEGAMON XE for CICS v5.1.0 data.
  - Existing customers who use EPILOG are advised to take a copy of the v4.x.0 TKANMOD dataset, which contains the relevant load modules, the documentation and the JCL samples in TKANSAM, and ensure their availability. They can continue to use the EPILOG reporter against data produced by the new release.
  - New customers who wish to use EPILOG will be able to download the load modules, documentation and samples **SHARE** in Atlanta

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## OMEGAMON XE for CICS on z/OS v5.1.0 - Planning



- During the installation of earlier releases of OMEGAMON XE for CICS on z/OS there was a requirement to allocate the RKCPDEFW file, which is used to save some Service Level Analysis related control information.
  - In this new release these steps are no longer required as the ITM installer on distributed platforms, and the installer steps on z/OS, will allocate the dataset.
  - This means that the customer can install the ITM framework and add CICS later without having to recycle their v5.1.0 STCs to pick up the dataset.

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# OMEGAMON XE for CICS on z/OS v5.1.0 - Planning



- Previous releases allowed the customer to set a Service Level Analysis collection interval for the agent.
  - In a multi agent environment this could now cause problems if different intervals were specified at different agents.
- The collection interval is now set in the TEP, to ensure synchronisation of the interval across agents.
  - The setting is also limited to intervals that are supported by the ITM framework. The supported collection intervals are 1 min, 5 mins, 15 mins, 30 mins and 1 hr.
- The SLA subtask is now zIIP enabled.
  - If you have an zIIP engine available you may see significant performance benefits when the SLA code runs there.



# OMEGAMON XE for CICS on z/OS v5.1.0 - Upgrade



#### Upgrade Considerations:

- CICSTG packaging change
  - CICSTG FMID is now part of the CICS product Receive, Apply and Accept jobs.
    SMPE requires the creation of a USS directory for SMPE target DDDEF TKANJAR. If you do not want to install CICS TG, you can omit this fmid from the SMPE jobs.
  - The TKGWJAR target DDDEF has been replaced with TKANJAR
  - The USS target directory name associated with the DDDEF has also been changed
  - Follow the "Complete the Configuration" instructions for making the required directory name changes
- The CICS and CICSTG agents no longer require registration to the Local TEMS on z/OS
- If you wish to use the new features delivered with this package such as CICSplex reporting, e3270ui and SDA, you will need to reconfigure your RTEs. Otherwise, you can install and reload the RTEs and wait to reconfigure until you are ready to use the new product features.

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## OMEGAMON XE for CICS on z/OS v5.1.0 - Upgrade



#### Revised STC requirements:

- Required OMEGAMON XE for CICS on z/OS STCs:
  - CANSDSST TEMS (either on a distributed or z/OS system)
  - CANSTOM OMEGAMON Enhanced 3270 User Interface (e3270ui)
  - CANSOCx OMEGAMON for CICS (3270), aka Menu System.
  - CANSC5 OMEGAMON XE for CICS agent (or it can be configured to run in a TEMS).
  - · Optional STCs/components:
    - CANSGW OMEGAMON XE for CICS TG agent (or it can be configured to run in a TEMS).
    - CANSC2x OMEGAMON II for CICS (CUA)
    - CANSET ETE (needed for OMCICS RTA VTAM LU definite response)
    - CANSCN OMEGAMON Subsystem (needed for INTR, and miscellaneous OMEGAMON 3270 commands).

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## OMEGAMON XE for CICS on z/OS v5.1.0 - Upgrade



- TEPS is no longer required for Product installation or upgrades if SDA is enabled:
  - A TEPS is not required for initial product installation or upgrade, as long as SDA is being used for application support seeding.
  - The tacmd cli is required for administration of SDA installed components (refer to ITM Administration Guide). To install the tacmd CLI, from your ITM V6.2.3 installation image, select the Tivoli Enterprise Services User Interface Extensions feature (KUE), under the TEMA, TEPS, or TEMS component selection list. It can be installed on any machines that has access to soap services communication to the Hub TEMS. Note: You do not need to run a TEMA, TEPS or TEMS in the machine that you intend to use the tacmd cli.

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# OMEGAMON XE for CICS on z/OS v5.1.0 - Upgrade



- If you do want to run a TEPS, you can install it after the OMEGAMON XE for CICS V510 product installation has been completed but you will only need to install the ITM v623 installation image. The TEPS is SDA enabled by default. If SDA application support seeding has been successfully completed at the Hub TEMS, when the TEPS, running only the framework connects to the SDA seeded Hub, the OMEGAMON CICS application support files will be automatically installed into the TEPS.
- After the product installation has been completed, If you wish to modify the OMEGAMON WLM definitions, you must use the OMEGAMON CICS Service Level Analysis View available in the TEPS interface: the TEPS interface is not required for IBM WLM definitions and service level analysis reporting.
- If you want to use other ITM features such as TEPS Historical, Policies, situations, etc, then you will want to install a TEPS but it does not have to be installed until after you have completed the OMEGAMON CICS product install or upgrading, using SDA seeding.



#### OMEGAMON XE for CICS on z/OS v5.1.0 -Upgrade



- Hilev.TKANDATV members KC5CAT/ATR/DOC/MAP/BAR have all been renamed to use the KCP prefix
- RTE load processing (ICAT and Parmgen) will delete the KC5 members from the RTE's DATV file
- If you run the RTE load process and RKANDATV is allocated, the DELETE step will fail. When you start the agent or TEMS, you will get duplicate catalog errors in the RKLVLOG log.
  - We are working toward no restarts for our STC during software installs and upgrades, but this is not yet true for the DELETE processing.

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#### OMEGAMON XE for CICS on z/OS v5.1.0 -SDA



- Verification of successful SDA processing for CICS and CICSTG agents:
- When the TEMS is running on z/OS, when SDA processing completes successfully, you will see the following messages written to the TEMS RKLVLOG:
- KFASD101 Self-Describing Install Completed Successfully for PRODUCT **CP**, VER <05100000>, ID <TMS>, IDVER <05100000>. <-- OMEGAMON XE for CICS
- KFASD101 Self-Describing Install Completed Successfully for PRODUCT **GW** VER <05100000>, ID <TMS>, IDVER <05100000>. <-- OMEGAMON XE for CICS T <-- OMEGAMON XE for CICS TG
- You will also see these error messages the first time you use SDA to install a product:

  - "KFASDM\_DeleteTapplpropLocal") Open request for delete local TAPPLPROPS failed. status <79> product <CP> product version <05100000> "KFASDM\_RequestMgr") KFASDM\_DeleteTapplpropLocal returned sqlStatus 79. product <CP> product version <05100000>
- <u>These are normal messages.</u> After the product is successfully installed, SDA will try to delete all prior versions of the install record, if any, of the same product. If there is no prior version install record, the delete will get a return code of 79.

