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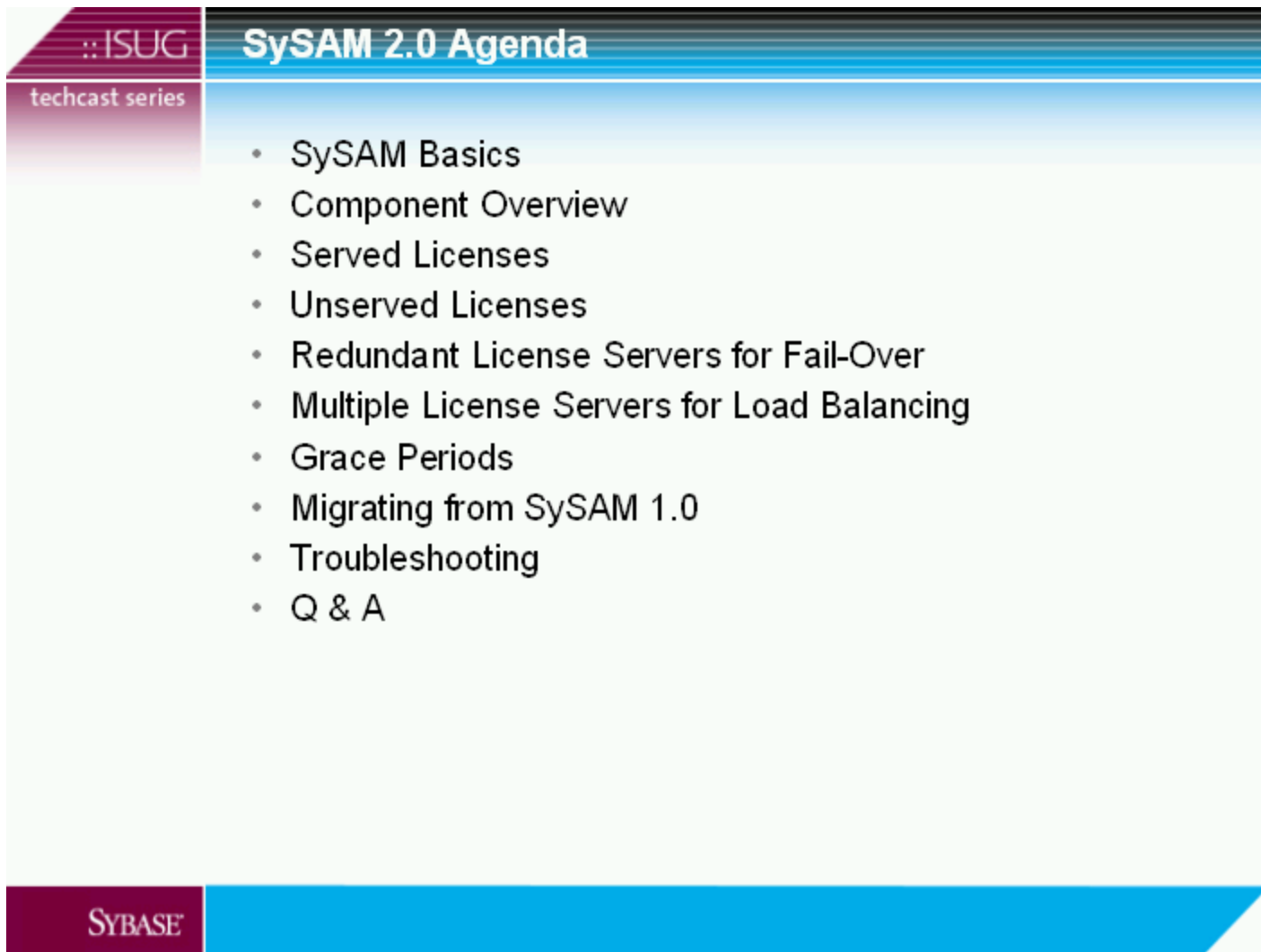
**SySAM 2.0–  
Successfully Managing  
IT Assets**



**Mark Kusma**  
**Sybase Principal Technical Support Engineer**

SYBASE

Slide 2



The slide features a header with the ISUG logo and 'techcast series' on the left, and the title 'SySAM 2.0 Agenda' on the right. A central list of topics is presented in a white box. At the bottom, the Sybase logo is on the left, and the title 'SySAM 2.0 Agenda' is centered.

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## SySAM 2.0 Agenda

- SySAM Basics
- Component Overview
- Served Licenses
- Unserved Licenses
- Redundant License Servers for Fail-Over
- Multiple License Servers for Load Balancing
- Grace Periods
- Migrating from SySAM 1.0
- Troubleshooting
- Q & A

SYBASE

## SySAM 2.0 Agenda




## Basics

- SySAM 2.0 was originally released with ASE 15.0
- SySAM employs FLEXnet Publisher from Macrovision, an industry standard tool
- SySAM now has cross-platform support
- SySAM can run in Served or Unserved modes
- SySAM licenses can be managed from a single server
- SySAM 2.0 implements Grace Periods
- SySAM licenses are no longer shipped with the product, as with SySAM 1.0


SYBASE

Basics



## Component Overview

- **SySAM is comprised of several components**
  - **SPDC – Sybase Product Download Center**
    - Used to generate / manage licenses
  - **License file(s)**
    - <anyname>.lic
  - **Network License Server**
    - License Server Manager (lmgrd) - Manages connections
    - Sybase SySAM Daemon (SYBASE) - Tracks license usage
  - **Options file**
    - SYBASE.opt
  - **Report Log file**
    - SYBASE.rl
  - **Debug Log file**
    - SYBASE.log
  - SySAM 2.0 enabled product, such as ASE 15.0
  - SAMreport



## Component Overview

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# SPDC

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## Product Information

### Adaptive Server Enterprise

Select a version.

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Version	Description	Date Available	
15.0	<a href="#">ASE DTM Option 15.0 for IBM AIX 64-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>
15.0	<a href="#">ASE DTM Option 15.0 for Linux 32-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>
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15.0	<a href="#">ASE Enterprise 15.0 for Linux 32-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>
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15.0	<a href="#">ASE Enterprise 15.0 for Windows 32-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>

SPDC 2

## License File

- License file(s) content

```
# Sybase Software Asset Management License File
SERVER giant 80c07c18
VENDOR SYBASE
USE_SERVER
PACKAGE ASE_EE SYBASE COMPONENTS=ASE_CORE OPTIONS=SUITE SUPERSEDE \
ISSUED=04-oct-2005 SIGN2="16CB 6831 2B2C C3E3 CF7D A0AF 0C53 \
68A2 4264 B733 9FAA 5531 4197 55C5 F288 1A04 8325 2BD7 F977 \
FE0F 637E E6FA 00F3 7B6C 52A9 14BB B3E8 14F9 D483 3426"
INCREMENT ASE_EE SYBASE 2005.09270 permanent 1 \
VENDOR_STRING=SORT=100;PE=EE;LT=SR PLATFORMS="sun4_u sun64_u" \
DUP_GROUP=H ISSUER="C0=Sybase, Inc.;V=15.0;AS=A;MP=0" \
ISSUED=04-oct-2005 BORROW=720 NOTICE=SYBASE SN=3818073-463 \
TS_OK SIGN2="1E4B C033 30F6 287A E34B 917F 075D 059A 86E9 990A \
52E5 E0A7 78CB 5AEF C985 0B4A 114F FE7C DFDC D730 4454 2366 \
0EAD 79E9 9808 8599 3E37 872E 97B6 C489"
```

Served License

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## License Server

- License Server Manager and SYBASE daemon
  - Managed with the new “sysam” wrapper script

**Usage:** `sysam [action] [args...]`

`action` = Action to perform. Can be one of the following:

<code>start</code>	The License Server will be started.
<code>stop</code>	The License Server will be stopped.
<code>status</code>	Display License Server status.
<code>diag</code>	Diagnose problems with check-out.
<code>reread</code>	Re-read license files.
<code>help</code>	Output this usage information.
	This is the default action if none specified.

`[args...]` are optional task specific arguments.

Use `sysam help` action for argument details.

SYBASE

## License Server



## Options and Report Files

- Options file

```
DEBUGLOG +/work/ase150/SYSAM-2_0/log/SYBASE.log  
REPORTLOG +/work/ase150/SYSAM-2_0/log/SYBASE.r1
```



append instead of overwrite

```
HOST_GROUP ase_ee_sr_grp host1 host2 host3  
HOST_GROUP ase_sbe_grp host4  
INCLUDE ASE_CORE:VENDOR_STRING=" SORT=100;PE=EE;LT=SR" \  
    HOST_GROUP ase_ee_sr_grp  
INCLUDE ASE_CORE:VENDOR_STRING=" SORT=400;PE=SE" \  
    HOST_GROUP ase_sbe_grp
```


- Report Log file

- used by SAMreport
- only created with Served license model

## Debug Log file


- Debug Log file

```
....
12:53:09 (lmgrd) License file(s): /work/ase150/SYSAM-2_0/licenses/giant.lic
    /work/ase150/SYSAM-2_0/licenses/SYBASE_ASE_DE.lic
12:53:09 (lmgrd) lmgrd tcp-port 27000
12:53:09 (lmgrd) Starting vendor daemons ...
12:53:09 (lmgrd) Started SYBASE (internet tcp_port 57018 pid 3336)
12:53:09 (SYBASE) FLEXnet Licensing version v10.8.0 build 18669
12:53:09 (SYBASE) Using options file: "/work/ase150/SYSAM-
    2_0/licenses/SYBASE.opt"
12:53:10 (SYBASE) Server started on giant for:
12:53:10 (SYBASE) ASE_DE (consisting of:          ASE_CORE)
12:53:10 (SYBASE) ASE_JAVA      ASE_ASM          ASE_DIRS
12:53:10 (SYBASE) ASE_DTM        ASE_HA          ASE_MESSAGING
12:53:10 (SYBASE) ASE_PARTITIONS ASE_ENCRYPTION)
12:53:10 (SYBASE) ASE_EE (consisting of:          ASE_CORE)
12:53:10 (SYBASE) Report log started (+/work/ase150/SYSAM-2_0/log/SYBASE.r1)
12:53:10 (SYBASE) Debug log started (+/work/ase150/SYSAM-2_0/log/SYBASE.log)
12:53:10 (lmgrd) SYBASE using TCP-port 60578
12:58:12 (SYBASE) OUT: "ASE_EE" sybase@giant
12:58:12 (SYBASE) OUT: "ASE_CORE" sybase@giant
12:58:48 (SYBASE) IN: "ASE_CORE" sybase@giant
12:58:48 (SYBASE) IN: "ASE_EE" sybase@giant
```

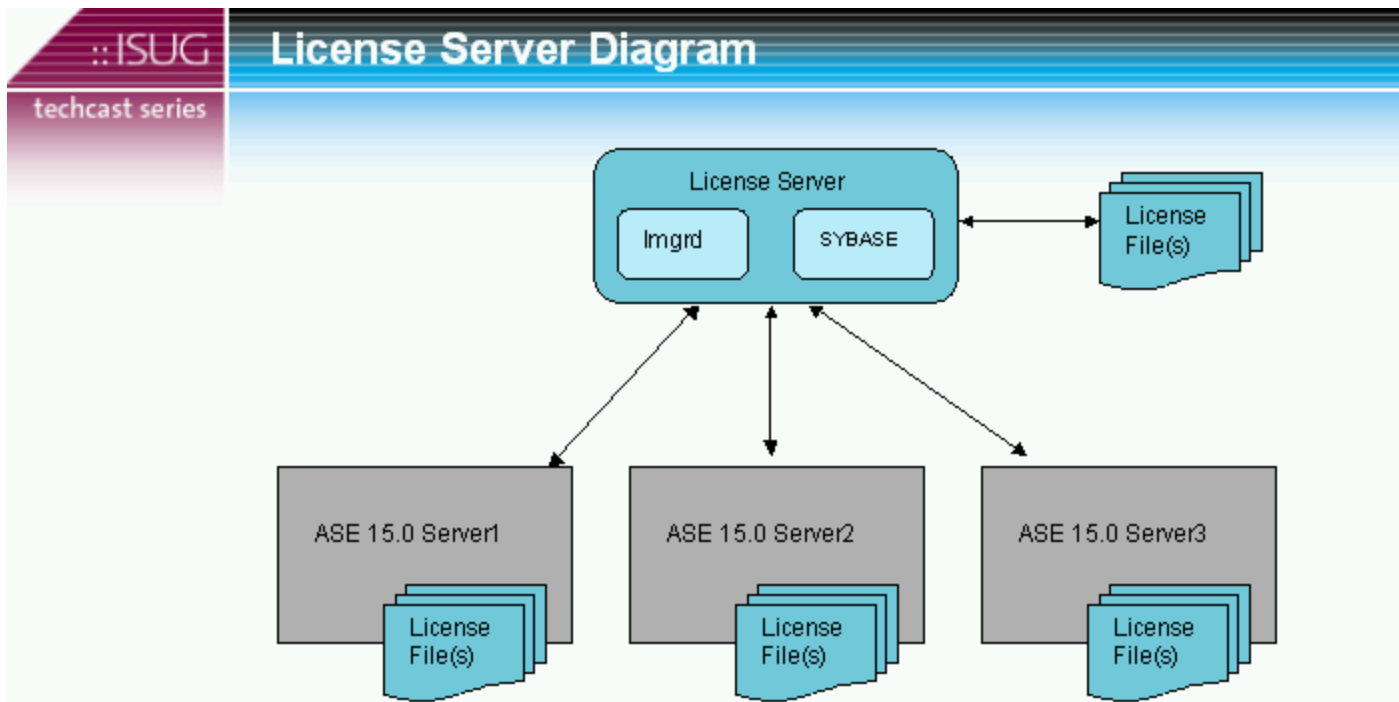


## Served Licenses

- License Servers can be
  - on the same host as ASE
  - on a remote host
  - centralized to support multiple ASE's
  - setup for fail-over support
  - setup for load-balancing support




## Served Licenses



This configuration can be one, or more, host machines




License Server Diagram



**Setup**

- To setup a License Server
  - Install SySAM License Manager from ASE CD
  - Generate licenses at the SPDC
  - Save license file to licenses directory
  - Start license manager
    - sysam start
  - Check the output or Debug Log to verify startup
  - Start ASE – or other SySAM enabled product



## Setup

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15.0	<a href="#">ASE Developer Edition 15.0 for IBM AIX 64-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>
15.0	<a href="#">ASE EFTS Option 15.0 for IBM AIX 64-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>
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## Product Download

### ASE Enterprise 15.0 for Sun Solaris 64-bit

From this page you can download and obtain information about the specific product(s) below.

Note: This product requires a license key for installation. After downloading the product files, please be sure to obtain your license key by clicking the License Keys tab below.

With this release, Sybase introduces a new version of asset management, Sybase Software Asset Management (SySAM) 2.0. For more information on SySAM, please refer to Chapter 7, "SySAM Configuration," in the ASE Configuration Guide. The full ASE 15.0 User Documentation set is available at: <http://www.sybase.com/support/manuals>

License Keys	Download Log	Notes	Notification Log	Restrict Access
<b>ASE 15.0 Documentation</b>				<a href="#">Download</a>
Download File Size: 10,311,460 bytes (9.8 MB) <a href="#">Estimated Times and Details</a>				<a href="#">Advanced Download Options</a>
<b>CD - ASE 15.0 for Sun Solaris 64-bit</b>				<a href="#">Download</a>
Download File Size: 511,886,562 bytes (488.2 MB) <a href="#">Estimated Times and Details</a>				<a href="#">Advanced Download Options</a>
<b>CD - ASE 15.0 PC Client for Windows</b>				<a href="#">Download</a>
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### Sybase Software Asset Management License Information

#### ASE Enterprise 15.0 for Sun Solaris 64-bit

To generate a license, select the radio button to the left of the applicable license and click the "Select to Generate" button at the bottom of this screen. You can generate partial license quantities by changing the quantity value on a subsequent screen.

To view details of previously generated licenses, check the box to the right of the applicable licenses and click the "Select to View" button.  
[\(What is Sybase Software Asset Management?\)](#) [\(SySAM Process Overview\)](#)

Select Licenses To Generate Select Licenses To View

<input type="radio"/>	Order Number: 20318-43-1/1263352 (7550801)
	Purchase Order Number: TEST# 7
	Item Description: ASE - Enterprise for Sun Solaris 64-bit
	Total Number of Licenses: 100
	License Type: Server (SR)
	Applicable to Product(s):
	Version Description
	15.0 ASE Enterprise 15.0 for Sun Solaris 64-bit <a href="#">(View EULA)</a>
	License for Quantity: 1 Expiration Date: September 27, 2006
	Host ID: 832b6880 (hkasc-v120)
	Generated By: Ivan Ma on Oct 4, 2005
	<input type="button" value="Check In"/> <a href="#">About Check In</a> <input type="button" value="Upgrade"/> <a href="#">About Upgrade</a>

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### Sybase Software Asset Management Generate Licenses

Item Description:	ASE - Enterprise for Sun Solaris 64-bit				
Order Number:	20318-43-1/1263352 (7550801)				
License Type:	Server (SR)				
Applicable to Product(s):					
<table><thead><tr><th>Version</th><th>Description</th></tr></thead><tbody><tr><td>15.0</td><td>ASE Enterprise 15.0 for Sun Solaris 64-bit <a href="#">View EULA</a></td></tr></tbody></table>	Version	Description	15.0	ASE Enterprise 15.0 for Sun Solaris 64-bit <a href="#">View EULA</a>	
Version	Description				
15.0	ASE Enterprise 15.0 for Sun Solaris 64-bit <a href="#">View EULA</a>				

#### Step 1 - License Model

A license model refers to how you set up your license files to be accessed by your licensed program (s). License files can reside on a central, networked license server in a Served License model or can reside on the machine that is running the licensed program in an Un-served License model ([more information](#)).

Only one license model can be generated at a time. If you want to generate both Served and Un-served licenses, complete this process and repeat for the second license model.

Licenses Available : 97

Served License  
 Un-served License

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## Sybase Software Asset Management Generate Licenses

Item Description: ASE - Enterprise for Sun Solaris 64-bit  
Order Number: 20316-43-1/1263352 (7550801)

License Type: Server (SR)  
Applicable to Product(s):  
Version: 15.0 Description: ASE Enterprise 15.0 for Sun Solaris 64-bit ([View EULA](#))

**Previous Steps**

Step 1 - License Model	Served License
------------------------	----------------

**Step 2 - License Quantity**

How many licenses do you want to generate?  
([How many licenses should I generate for a Served License?](#))

Quantity:  (Licenses Available : 97)

How many Overdraft Licenses do you want to reserve?  
([What is an Overdraft License?](#))

Overdraft:  (Maximum: 10% of the Quantity rounded up to the next whole number)

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## Sybase Software Asset Management Generate Licenses

Item Description: ASE - Enterprise for Sun Solaris 64-bit  
Order Number: 20318-43-1/1263352 (7550801)

License Type: Server (SR)  
Applicable to Product(s):  
Version: 15.0 Description: ASE Enterprise 15.0 for Sun Solaris 64-bit ([View RULA](#))

Previous Steps	
Step 1 - License Model	Served License
Step 2 - License Quantity	Quantity = 00

### Step 3 - Host Information

[What is my Host ID?](#)

Server Host ID:   
Host Name:   
Port Number:  (optional unless using redundant servers)

For high-availability environments, license files can run in a redundant 3 - license server cluster. If you want to use this option, enter both redundant servers below as well as the primary server above, including port numbers. Redundant license servers are not required.

Redundant Server  
Host ID:   
Host Name:   
Port Number:

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## SPDC 6

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## SPDC 7

License Overview
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**License Applicable to Product(s):**

Version	Description
15.0	ASE Enterprise 15.0 for Sun Solaris 64-bit


License for Quantity: 80 Expiration Date: September 27, 2006  
 Host ID: 0123456789ab (giant)  
 Generated By: Mark Kusma on Nov 14, 2005

```
# Sybase Software Asset Management License File. SR License for ASE -
# Enterprise for Sun Solaris 64-bit
SERVER giant 0123456789ab
VENDOR SYBASE
USE SERVER
PACKAGE ASE_RE SYBASE COMPONENTS=ASE_CORE OPTIONS=SUITE SUPERSEDE \
  ISSUED=14-nov-2005 SIGN2=*0432 9BD1 AA4C B71B 32F5 BB59 7E08 \
  68A1 F532 4E5A B074 F247 7DC0 5B95 FDA5 1460 BE14 E8D9 0AF2 \
  0E80 BC70 C60D A733 7878 F82A 8D1A 6DAF FB74 5071 E458*
INCREMENT ASE_RE SYBASE 2006.09270 27-sep-2006 80 \
  VENDOR_STRING=SOFT=100;PE=RE;LT=SR PLATFORMS="sun4_u sun64_u" \
  DUP_GROUP=H ISSUER="CO=Sybase, Inc.;V=15.0;AS=A;MP=365" \
  ISSUED=14-nov-2005 BORROW=720 NOTICE=SYBASE SN=3818073-923 \
  TS_OK SIGN2=*01E4 91E1 8418 30E5 F27A 52A5 3357 FA31 09BA 5FF0 \
  8ECA BCFD DB36 A049 5667 0969 E792 E715 3787 570D F7ED 7B99 \
  298A 5E21 30C3 E50C 4FAF 7DFA 7759 950D*
```

License Overview
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SYBASE

## SPDC 7




## SySAM Startup

```
9:51:33 (lmgrd) License file(s): /work/ase150/SYSAM-2_0/licenses/giant.lic
9:51:33 (lmgrd) lmgrd tcp-port 27001
9:51:33 (lmgrd) Starting vendor daemons ...
9:51:33 (lmgrd) Started SYBASE (internet tcp_port 34592 pid 20807)
9:51:33 (SYBASE) FLEXnet Licensing version v10.8.0 build 18669
9:51:33 (SYBASE) Using options file: "/work/ase150/SYSAM-
2_0/licenses/SYBASE.opt"
9:51:33 (SYBASE) Server started on giant for:
9:51:33 (SYBASE) ASE_EE (consisting of: ASE_CORE)
9:51:33 (SYBASE) Report log started (+/work/ase/ase150/SYSAM-
2_0/log/SYBASE.r1).
9:51:33 (SYBASE) Debug log started (+/work/ase/ase150/SYSAM-
2_0/log/SYBASE.log).
9:51:33 (SYBASE) Server started on giant for:
9:51:33 (SYBASE) ASE_EE (consisting of: ASE_CORE)
9:51:33 (lmgrd) SYBASE using TCP-port 34592
```



## SySAM Startup




## Product Startup

```
asehost% startserver -f RUN_ase150
kernel SySAM: Using licenses from: /work/ase150/SYSAM-
2_0/licenses
kernel SySAM: Checked out license for 1 ASE_CORE
(2005.09270/27-sep-2006/1E4B C033 30F6 287A) will expire Thu
Sep 28 00:00:00 2006.
kernel This product is licensed to: SYBASE
kernel Checked out license ASE_CORE
kernel Adaptive Server Enterprise (Enterprise Edition)
```

- Our local license file contains a pointer to the license manager on giant

```
SERVER giant ANY
USE_SERVER
```



## Product Startup

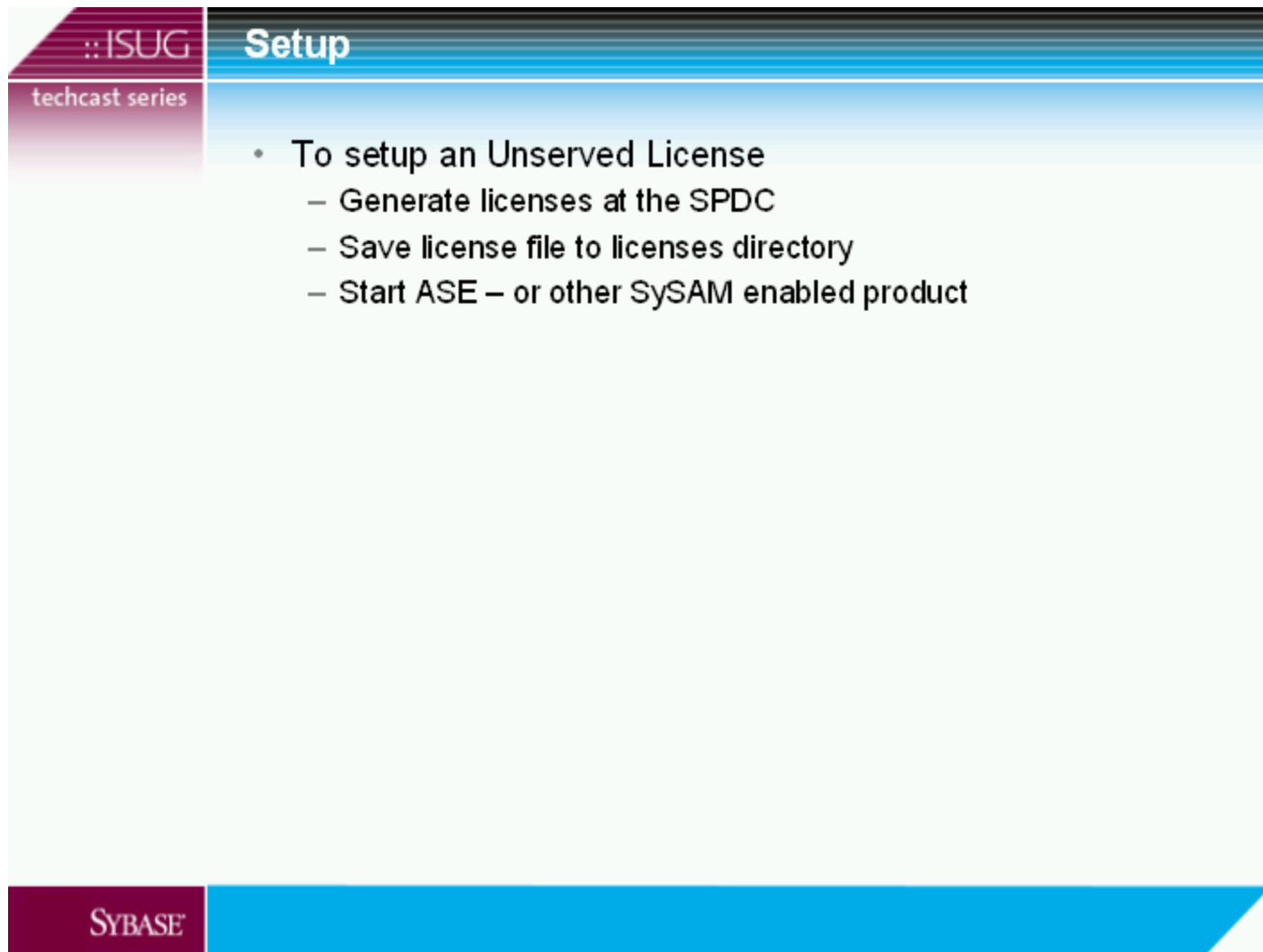


## Unserviced Licenses

- Licenses can also be installed locally
  - on the same host as ASE
  - no license manager daemons
  - supports multiple ASE's on this same host
  - must be regenerated if hostid changes
  - usage reporting not available
- Good for
  - isolated systems
  - Developer Edition licenses



## Unserviced Licenses



The slide features a header with the ISUG logo and 'techcast series' on the left, and the word 'Setup' in a large font on the right. Below the header, a bulleted list provides instructions for setting up an Unserved License. At the bottom, the Sybase logo is on the left, and the word 'Setup' is centered in a large font.

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## Setup

- To setup an Unserved License
  - Generate licenses at the SPDC
  - Save license file to licenses directory
  - Start ASE – or other SySAM enabled product

SYBASE

## Setup

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15.0	<a href="#">ASE EFTS Option 15.0 for Windows 32-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>
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15.0	<a href="#">ASE Enterprise 15.0 for Linux 32-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>
15.0	<a href="#">ASE Enterprise 15.0 for Sun Solaris 64-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>
15.0	<a href="#">ASE Enterprise 15.0 for Windows 32-bit</a>	Sep 1, 2005	<a href="#">Download Log</a>

SPDC 1

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# SPDC 2

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## Product Download

### ASE Enterprise 15.0 for Sun Solaris 64-bit

From this page you can download and obtain information about the specific product(s) below.

Note: This product requires a license key for installation. After downloading the product files, please be sure to obtain your license key by clicking the License Keys tab below.

With this release, Sybase introduces a new version of asset management, Sybase Software Asset Management (SySAM) 2.0. For more information on SySAM, please refer to Chapter 7, "SySAM Configuration," in the ASE Configuration Guide. The full ASE 15.0 User Documentation set is available at: <http://www.sybase.com/support/manuals>

<a href="#">License Keys</a>	<a href="#">Download Log</a>	<a href="#">Notes</a>	<a href="#">Notification Log</a>	<a href="#">Restrict Access</a>
<b>ASE 15.0 Documentation</b>				
Download File Size: 10,311,460 bytes (9.8 MB)			<a href="#">Advanced Download Options</a>	
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<b>CD - ASE 15.0 for Sun Solaris 64-bit</b>				
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### Sybase Software Asset Management License Information

#### ASE Enterprise 15.0 for Sun Solaris 64-bit

To generate a license, select the radio button to the left of the applicable license and click the "Select to Generate" button at the bottom of this screen. You can generate partial license quantities by changing the quantity value on a subsequent screen.

To view details of previously generated licenses, check the box to the right of the applicable licenses and click the "Select to View" button.  
[\(What is Sybase Software Asset Management?\)](#) [\(SySAM Process Overview\)](#)

Select Licenses To Generate Select Licenses To View

<input type="radio"/>	Order Number: 20318-43-1/1263352 (7550801)
	Purchase Order Number: TEST# 7
	Item Description: ASE - Enterprise for Sun Solaris 64-bit
	Total Number of Licenses: 100
	License Type: Server (SR)
	Applicable to Product(s):
	Version Description
	15.0 ASE Enterprise 15.0 for Sun Solaris 64-bit <a href="#">(View EULA)</a>
	License for Quantity: 1 Expiration Date: September 27, 2006
	Host ID: 832b6880 (hkasc-v120)
	Generated By: Ivan Ma on Oct 4, 2005
	<input type="button" value="Check In"/> <a href="#">About Check In</a> <input type="button" value="Upgrade"/> <a href="#">About Upgrade</a>

SPDC 3

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## SPDC 4

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### Sybase Software Asset Management Generate Licenses

Item Description: ASE - Enterprise for Sun Solaris 64-bit  
Order Number: 20318-43-1/1263352 (7550801)

License Type: Server (SR)  
Applicable to Product(s):  
Version: 15.0 Description: ASE Enterprise 15.0 for Sun Solaris 64-bit ([View EULA](#))

#### Step 1 - License Model

A license model refers to how you set up your license files to be accessed by your licensed program (s). License files can reside on a central, networked license server in a Served License model or can reside on the machine that is running the licensed program in an Un-served License model ([more information](#)).

Only one license model can be generated at a time. If you want to generate both Served and Un-served licenses, complete this process and repeat for the second license model.

Licenses Available : 97

Served License  
 Un-served License

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## SPDC 4

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**SPDC 5**

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### Sybase Software Asset Management Generate Licenses

Item Description: ASE - Enterprise for Sun Solaris 64-bit  
Order Number: 20318-43-1/1263352 (7550801)

License Type: Server (SR)  
Applicable to Product(s):  

Version	Description
15.0	ASE Enterprise 15.0 for Sun Solaris 64-bit ( <a href="#">View B/L/A</a> )

**Previous Steps**

Step 1 - License Model	Un-served License
------------------------	-------------------

**Step 2 - Number of Machines to License?**  
How many Host Machines are you generating licenses for?  
Licenses Available : 97  
You can create licenses for a maximum of 10 machines at a time. If you need to generate licenses for more machines, enter the information for the first 10 machines on the next screen, generate the licenses, and repeat this process as needed.

Quantity :

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# SPDC 6

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## Sybase Software Asset Management Generate Licenses

Item Description: ASE - Enterprise for Sun Solaris 64-bit  
Order Number: 20318-43-1/1263352 (7550801)

License Type: Server (SR)  
Applicable to Product(s):  
Version: 15.0 Description: ASE Enterprise 15.0 for Sun Solaris 64-bit ([View EULA](#))

**Previous Steps**

Step 1 - License Model	Un-served License
Step 2 - Number of Machines to License?	Quantity = 1

**Step 3 - On what Host Machine will the Application be Installed?**  
[What is my Host ID?](#)

Node Host ID	<input type="text" value="0123456789ab"/>
Host Name	<input type="text" value="giant"/>

<< Back Generate >>

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## SPDC 6

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SPDC 7

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License Overview
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**License Applicable to Product(s):**

Version	Description
15.0	ASE Enterprise 15.0 for Sun Solaris 64-bit

License for Quantity: 1      Expiration Date: September 27, 2006  
 Host ID: 0123456789ab (giant)  
 Generated By: Mark Kusma on Nov 14, 2005

```
# Sybase Software Asset Management License File. SR License for ASE -
# Enterprise for Sun Solaris 64-bit
PACKAGE ASE_EE SYBASE COMPONENTS=ASE_CORE OPTIONS=SUITE SUPERSEDE \
  ISSUED=14-nov-2005 SIGN2="0432 9BD1 AA4C B71B 32F5 BB59 7E08 \
  69A1 F532 4E5A B074 F247 7DC0 5B05 FDA5 1460 BE14 E0D9 0AF2 \
  0E80 BC70 C60D A733 7878 F82A 8D1A 6DAF FB74 5071 E458"
# License for 0123456789ab giant
INCREMENT ASE_EE SYBASE 2006.09270 27-sep-2006 uncounted \
  VENDOR_STRING=SR100;PE=EE;LT=SR HOSTID=0123456789ab \
  PLATFORMS="sun4_u sun64_u" ISSUER="CO=Sybase, \
  Inc.;V=15.0;AS=A;MP=365" ISSUED=14-nov-2005 NOTICE=SYBASE \
  SN=3018073-924 SIGN2="1D90 B96B 914C 04A3 A649 E3FC 30EF 25FC \
  6543 958C 3E5A 237F 08A6 10CA D7DE 015F B663 253B 9DB4 FEAD \
  48FE 6306 11EC 1331 E0D6 432A 70F1 DE01 905F 4C52"
```

License Overview
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## SPDC 7



## Developer Edition

- ASE comes with an Unreserved DE License

```
# Package definition for ASE Developer Edition
PACKAGE ASE_DE SYBASE COMPONENTS="ASE_CORE ASE_JAVA ASE_ASM ASE_DIRS \
  ASE_DTM ASE_HA ASE_MESSAGING ASE_PARTITIONS ASE_ENCRYPTION" \
  OPTIONS=SUITE SUPERSEDE ISSUED=18-aug-2005 SIGN2="0C1E F1F1 \
  7727 6D67 C7D9 7AA8 B0C1 1EF3 93E7 675A 9DA1 7D64 878D 537D \
  AB75 1CDD 850C 2290 2572 612B 1B5A D1AA D4A9 B17C 5DF1 C7AE \
  ACD7 BB0F E448 ADC0"
# ASE Developer Edition
INCREMENT ASE_DE SYBASE 2007.1231 permanent uncounted \
  VENDOR_STRING=SORT=900;PE=DE;LT=DT HOSTID=ANY \
  ISSUER="CO=Sybase, Inc.;V=15.0;AS=A;ME=1;MC=25;MP=0;CP=1" \
  ISSUED=18-aug-2005 NOTICE="ASE Developer Edition - For \
  Development and Test use only" TS_OK SIGN2="1D6C 07BE B477 \
  A3E1 40B1 AF1D 9A54 4140 FF73 F986 BE25 08C3 1EFB 69D7 5B49 \
  0E55 F834 4757 B472 DBF3 F8F7 DED2 D0E5 C5C5 59B8 45A1 AEE4 \
  86DC 1E72 1DFD"
```

The SYBASE logo, consisting of the word "SYBASE" in a white, serif font on a dark blue background.

Developer Edition




## Redundant License Servers

- We use redundant license servers for fail-over, not load balancing
- Two of the three machines must be up
- All three machines must
  - run same OS
  - have excellent communications
  - reside on same subnet
- With grace mode, you don't really need redundancy


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Redundant License Servers



## Setup

- Generate license at SPDC using all 3 hostids / ports
- Download the file to licenses directory for all hosts
- Start all 3 licenses servers  
    sysam start
- Check the status of the servers  
    sysam status
  - One should be MASTER
- On ASE host, set the environment variable  
    LM\_LICENSE\_FILE or SYBASE\_LICENSE\_FILE  
    LM\_LICENSE\_FILE=27000@host1:27000@host2:27000@host3
- Start ASE



## Setup

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## License Generation

Previous Steps	
Step 1 - License Model	Served License
Step 2 - License Quantity	Quantity = 20

### Step 3 - Host Information

[What is my Host ID?](#)

Server Host ID:   
Host Name:   
Port Number:  (optional unless using redundant servers)

For high-availability environments, license files can run in a redundant 3 - license server cluster. If you want to use this option, enter both redundant servers below as well as the primary server above, including port numbers. Redundant license servers are not required.

Redundant Server Host ID:   
Host Name:   
Port Number:

Redundant Server Host ID:   
Host Name:   
Port Number:

<< Back      Generate >>

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## License Generation

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## Redundant License Key


License for Quantity: 20  
 Host ID: 000103255df4 (winserv1)  
 Host ID: 0003123514fd (winserv2)  
 Host ID: 00010df43255 (winserv3)  
 Generated By: Mark Kusma on Nov 13, 2005

```
# Sybase Software Asset Management License File. SR License for ASE Enterprise
# Edition for Windows NT 32-bit
SERVER winserv1 000103255df4 27000
SERVER winserv2 0003123514fd 27000
SERVER winserv3 00010df43255 27000
VENDOR SYBASE
USE_SERVER
PACKAGE ASE_EE SYBASE COMPONENTS=ASE_CORE OPTIONS=SUITE SUPERSEDE \
  ISSUED=13-nov-2005 SIGN2="03E5 B92D E04B AAF1 E089 ED33 59B0 \
  9A29 6C9D 655D 6BF9 DE68 06DC 8D27 F4FA 0B21 F48D B530 055F \
  B864 BCF6 7472 3E89 86D7 B555 031A 93B5 93EC 1D76 6A4A"
INCREMENT ASE_EE SYBASE 2006.09270 27-sep-2006.20 \
  VENDOR_STRING=SORT=100;PE=EE;LT=SR PLATFORMS=186_n DUP_GROUP=H \
  ISSUER="CO=Sybase, Inc.;V=15.0;AS=A;MP=365" ISSUED=13-nov-2005 \
  BORROW=720 NOTICE=SYBASE SN=3818096-920 IS_OK SIGN2="0D47 5264 \
  D0F0 0247 681D D764 B76A 6387 0ED9 2716 2235 7208 F90A 6AF4 \
  FCF6 055B CCAD 356D 0A33 F36A 6271 07EF 440C 4734 47B1 9C13 \
  E91E 0E63 9BF5 B526"
```

License Overview

Print Friendly

Download License File



## Redundant License Key

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## Multiple License Servers

- We use multiple license servers for load balancing
- Any number of hosts can be used
- Licenses are only available if the license server is up
  - But, we still have Grace Mode
- Generate license files for each license server at SPDC
  - Example: 10/10/10 for three hosts, instead of 30
- Download the files to licenses directory for each host
- Start each license server  
sysam start
- On ASE host, set the environment variable  
LM\_LICENSE\_FILE or SYBASE\_LICENSE\_FILE  
LM\_LICENSE\_FILE=27000@host1:27000@host2
- Start ASE
- ASE will search each host for a license until found
- To load balance, set various ASEs in different license server order

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## Multiple License Servers



## Grace Periods

- **There are three types of Grace Periods**
  - **Install-time grace period**
    - Provides 30 days to generate, download, and install license(s)
  - **Runtime grace period**
    - Provides 30 days to fix a down license manager
    - Applies after you have successfully used a license
  - **Support renewal grace period**
    - Provides 1 year to update licenses
    - Software released within 1 year of end-of-support date will still run
    - Does not mean free support

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Grace Periods

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## Migrating from SySAM 1.0

- Use a Served License model for easiest setup
  - Install new SySAM License Manager
  - If SySAM 1.0 is running on this host, stop it
  - Copy old license.dat file to SySAM 2.0 licenses directory, renaming it to license.lic
  - Set license.lic first three lines to

```
SERVER <host> <hostid> <port>
VENDOR SYBASE
USE_SERVER
```
  - If other SySAM 1.0 servers, copy only the license info (no headers) into the new license.lic file
  - Set old license.dat files to

```
SERVER <host of SySAM 2.0> ANY <port>
VENDOR SYBASE
USE_SERVER
```
- If need to keep SySAM 1.0 Daemon running on same host as ASE 15.0, use unserved SySAM 2.0 license

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### Migrating from SySAM 1.0

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**Troubleshooting 1**

- Most common mistake seen so far
  - Trying to start license manager using an unserved license
  - On Windows:

```
C:\Sybase\ase150\SYSAM-2_0\bin>sysam start
Starting the SYSAM service
The SYSAM service is starting.
The SYSAM service could not be started.

The service did not report an error.

More help is available by typing NET HELPMMSG 3534.
```
  - On Unix:

```
sysam start
license manager can't initialize: No SERVER lines in license file.
License path: /work/ase/ase150/SYSAM-2_0/licenses/unserved.lic
FLEXnet Licensing error:-13,66
For further information, refer to the FLEXnet Licensing End User
Guide,
available at "www.macrovision.com".
```
- Go back to SPDC and generate Served licenses

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## Troubleshooting 1

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## Troubleshooting 2

- License file(s) content

```

# Sybase Software Asset Management License File
SERVER giant 80c07c18
VENDOR SYBASE
USE_SERVER
PACKAGE ASE_EE SYBASE COMPONENTS=ASE_CORE OPTIONS=SUITE SUPERSEDE \
ISSUED=04-oct-2005 SIGN2="16CB 6831 2B2C C3E3 CF7D A0AF 0C53 \
68A2 4264 B733 9FAA 5531 4197 55C5 F288 1A04 8325 2BD7 F977 \
FE0F 637E E6FA 00F3 7B6C 52A9 14BB B3E8 14F9 D483 3426"
INCREMENT ASE_EE SYBASE 2005.09270 permanent 1 \
VENDOR_STRING=SORT=100;PE=EE;LT=SR PLATFORMS="sun4_u sun64_u" \
DUP_GROUP=H ISSUER="C0=Sybase, Inc.;V=15.0;AS=A;MP=0" \
ISSUED=04-oct-2005 BORROW=720 NOTICE=SYBASE SN=3818073-463 \
TS_OK SIGN2="1E4B C033 30F6 287A E34B 917F 075D 059A 86E9 990A \
52E5 E0A7 78CB 5AEF C985 0B4A 114F FE7C DFDC D730 4454 2366 \
0EAD 79E9 9808 8599 3E37 872E 97B6 C489"
          
```

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## Troubleshooting 2



## Troubleshooting 3

- Determine License Model that will be adopted
- Activate and download required licenses from SPDC
  - Customers with large entitlements: Determine which licenses are needed
- Setup Network License Server (if using one)
- Determine how notifications on SySAM alerts are to be performed
- Install and configure ASE
  - Customers who have a mix of Editions/License types: Determine which license type is being installed

Note: This is only a recommendation. Actions can be performed out of sequence.

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Troubleshooting 4

Parameter Name	Config Value
edition	EE
license type	CP
smtp host	smtp.sybase.com
email recipients	admin@sybase.com
email severity	INFORMATIONAL
smtp port	25
email sender	sysam@sybase.com

License Name	Version	Quantity	Status	Expiry Date	
ASE_HA		1	graced	Dec 9 2005 9:18AM	Grace mode
ASE_DTM	2005.1231	1	expirable	Jan 1 2006 12:00AM	Expirable
ASE_ASM	NULL	0	not used	NULL	Unused
ASE_EJB	NULL	0	not used	NULL	
ASE_EFTS	2005.1231	1	OK	Permanent	
ASE_XRAY	2005.1231	1	OK	Permanent	
ASE_MESSAGING	2005.1231	1	OK	Permanent	
ASE_DA	NULL	0	not used	NULL	
ASE_ENCRYPTION	NULL	0	not used	NULL	
ASE_CORE	2005.1231	1	OK	Permanent	Permanent
ASE_PARTITIONS	2005.1231	1	OK	Permanent	

Property Name	Property Value
PE	EE
LT	CP
ME	null Max Engines for SBE, DE, and XE
MC	null Max Connections for SBE and DE
MS	null Max Storage for XE
MM	null Max Memory for XE
CP	0 (CPU licenses) Served license, unserved would be > 0
AS	A Active, Standby would be 'S'

(return status = 0)

## Troubleshooting 4



## Troubleshooting 5

- ASE/License Server doesn't have Internet access
  - Generate licenses from a machine with access
  - Copy license files to diskette or CD
  - Take to secure/stand-alone machine and copy
  - Can also print license and take hard-copy

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Troubleshooting 5






## Troubleshooting 6

- If you call Tech Support, we will need
  - License files on ASE system and License Server
  - License Server log file
  - ASE errorlog
  - If ASE starts in grace mode
    - sp\_lmconfig output
  - If ASE does not start
    - \$SYBASE/ASE-15\_0/sysam/<server>.properties

SYBASE

## Troubleshooting 6



The slide features a decorative header with a maroon and blue gradient bar. On the left, a maroon box contains the text "ISUG" and "techcast series". The center of the slide is dominated by the large, black, serif "SYBASE" logo with a registered trademark symbol. At the bottom, a maroon box contains the "SYBASE" logo in white.

Slide 47