

## CA Gen Components *Explained*

### ***Abstract***

- > There is a lot of confusion about what the different CA Gen components are. This presentation seeks to explain what each of the components are and what they do!

## CA Gen Components *Explained*

### *Product Licensing*

- > Any reference to the licensing basis in this presentation reflects the current official baseline CA position. Many customers for historical reasons have bases that differ from that called out here and those terms have been honoured by CA.

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## CA Gen Components *Explained*

### *Agenda*

- > Development Infrastructure
  - Encyclopedia
  - Generators
  - Implementation Toolsets
  - Workstation Components
- > Runtime Infrastructure
  - Runtime
  - Middleware
- > Coming in Release 8.0...

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## Encyclopedia Basics

### > Distributed

- Client/Server Encyclopedia - CSE

### > Host

- Host Encyclopedia - HE
- Aka Central Encyclopedia - CE

### > Both Implementation Styles also referred to as "Repositories"

## Distributed Encyclopedia

### > Encyclopedia Server

- Used for Configuration Management and Change Control

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## Distributed Encyclopedia

### > Encyclopedia Server

- Licensed per developer node\*:
  - 1 developer, 1 CSE = 1 license
  - 1 developer, 2 CSEs = 2 licenses
  - 5 developers, 2 on CSE a, 2 on CSE b, 1 on both = 6 licenses
- Some contracts still reflect the TI/Sterling per-server licenses.

**\* Since April 2001**

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## Distributed Encyclopedia

### > Encyclopedia Server

- Current Platforms (7.6)
  - Windows [Oracle / SQLServer]
  - AIX [Oracle]
  - HP-UX PA-RISC [Oracle]

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## Distributed Encyclopedia

### > Encyclopedia Server Update API

- Used to update CA Gen models from external 3<sup>rd</sup> party applications and utilities
- Runs on all platforms
- Licensed per developer per CSE

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## Distributed Encyclopedia

### > Encyclopedia Construction Server

- Permits the generation of application code directly from the CSE itself
- Supported on all CSE platforms
- Server License

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## Distributed Encyclopedia

### > Encyclopedia Cross Generation to

- Linux (C)
- Unix (C)
  - Included free on Unix Construction Servers
- Windows (C)
  - Included free on Windows Construction Servers
- Windows (C# - .Net Remote Servers)
  - Included free on Windows Construction Servers
- z/OS (Cobol)
- EJBs (Java)

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## Distributed Encyclopedia

### > Other Encyclopedia Generation Targets

- Web Generation
  - Supported from both Windows and Unix CSEs
- All 4 Proxy Programming Interfaces
  - Supported from Windows CSE **ONLY**

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## Host Encyclopedia

### > Encyclopedia Server

- Used for Configuration Management and Change Control
- Runs on z/OS Mainframe ONLY
- Licensed per processor
  - Unlimited number of users

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## Host Encyclopedia

### > Encyclopedia Server Update API

- Used to update CA Gen models from external 3<sup>rd</sup> party applications and utilities
  - Licensed per developer per HE

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## Host Encyclopedia

### > Encyclopedia Construction Server

- Permits the generation of application code directly from the HE itself
- Server License
  - Unlimited users
- Only Generates Enterprise Cobol

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## Host Encyclopedia

### > Encyclopedia Construction Environment for CICS

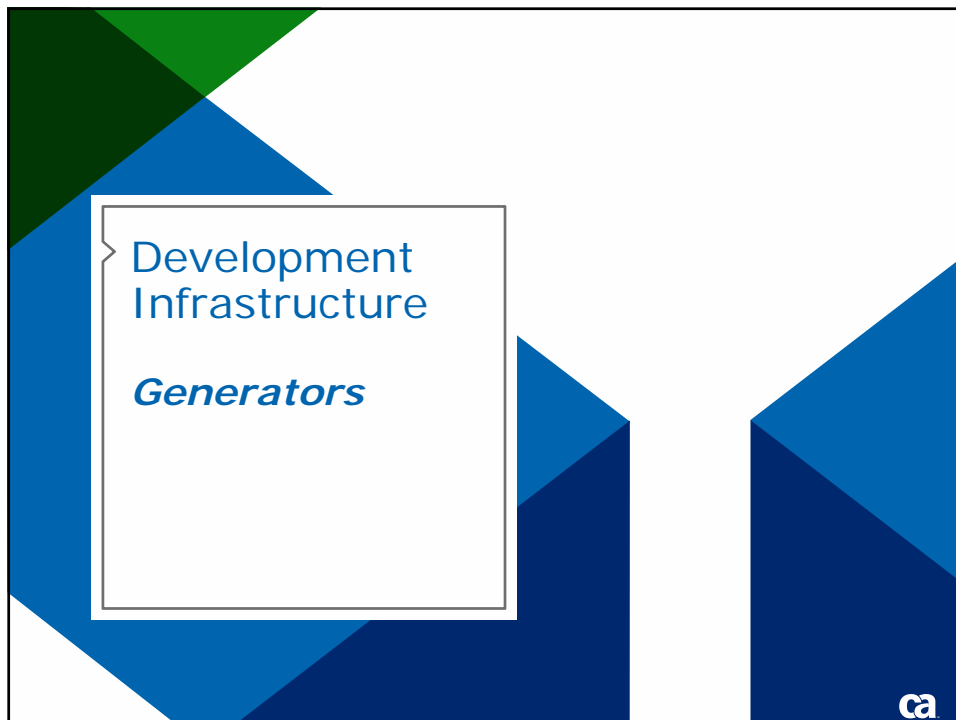
- Permits the generation of application code directly from the HE itself for deployment into **CICS**

### > Encyclopedia Construction Environment for IMS

- Permits the generation of application code directly from the HE itself for deployment into **IMS**

### > **EITHER** one of these is bundled free with the Host Encyclopedia Construction Server (*but not both*)

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## Generators

- > These create the source code that can be subsequently processed by the Implementation Toolsets on the target platforms of choice
- > The Encyclopedia Construction Servers include code generation for the platform on which the construction server is running
  - On z/OS it is always Cobol but there is a choice of generation to CICS or IMS
  - Cross Generation to platforms different than the Construction Servers are chargeable

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## Generators

- > Windows Code Generation is included with Workstation Construction (see ***Workstation Components***)
- > Web Generation includes both Java Web as well as ASP.NET Web generation

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## Implementation Toolsets

### > Includes:

- The Build Tool for the Platform of Choice
- The runtime for the Platform of Choice

> Used for compilation and link editing of generated source code

> Also used for 'Assembly' for Java EE, .NET and Web

> Can be used for deployment on to most target platforms

> Ensures code is truly native to the target platform

## Implementation Toolsets

> The IT provides the 'production licensing basis' for most of the CA Gen 'Tiered Server' products.

- For example
  - Proxies
  - Communications Base Manager
  - Web Generation
  - Server Side Middleware



Development  
Infrastructure

*Workstation  
Components*



## Workstation Components

- > The CA Gen workstation toolset components are those used to perform all modelling functions. These include but are not limited to process modelling, data modelling, action diagramming, UI design and Database design
- > The license basis for all of these components is per developer

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## Workstation Components

- > Analyst Toolset [*Not available for **new** sales*]
- > Developer Toolset
  - Includes Analyst Toolset Bundled Free
- > Construction Toolset
  - Windows Generation Bundled Free
  - .Net Remote Generation Bundled Free
  - Required for:
    - Cross Gen to all other target platforms
    - Proxy Generation
    - Web Generation
    - EJB Generation

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## Workstation Components

### > Implementation Toolset

- Provided as part of workstation construction
- Includes Build Tool and Runtime

### > Web Service Plugin

- Free with Java Proxy

### > Database Scheme Import Facility

- Licensed per developer

### > Workstation Encyclopedia Update API

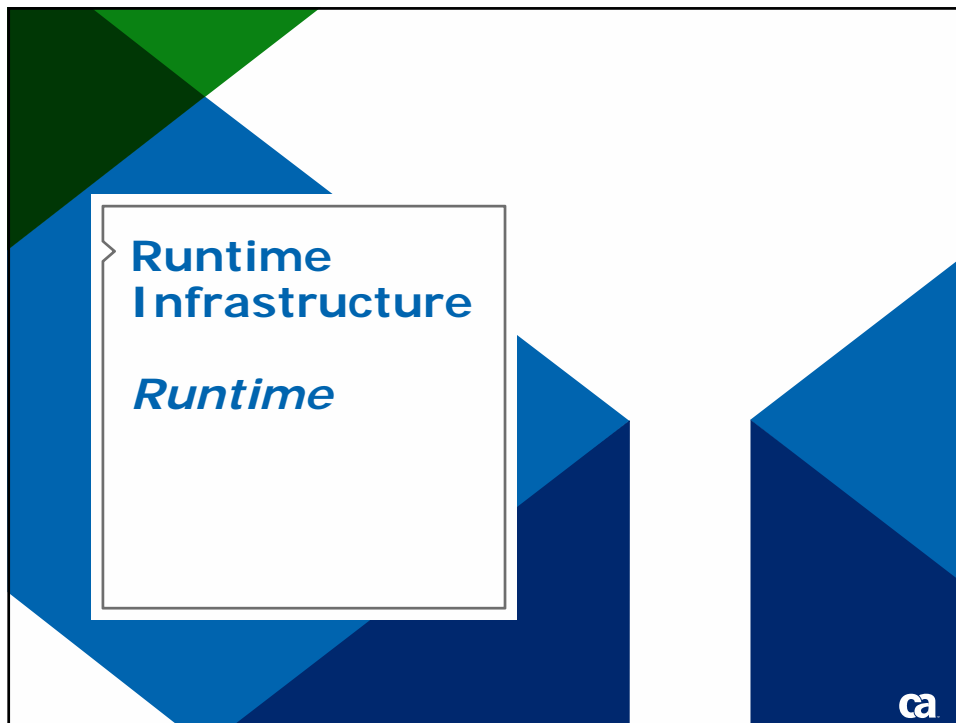
- Licensed per developer
- Free for use on PC where workstation toolset is already installed but chargeable otherwise

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**Runtime  
Infrastructure**

The graphic features a white rectangular box with a thin black border and a small tab on the left side. The text 'Runtime Infrastructure' is centered within the box in a bold, blue, sans-serif font. The background of the slide is composed of several overlapping triangles in shades of blue and green, creating a geometric pattern.



## CA Gen Client Runtime

### > On Windows Client, provided by:

- Client Manager
- Middleware TCP/IP
- Middleware Tuxedo
- Middleware MQ Series
- Middleware ECI

### > On Windows Server, provided by:

- Implementation Toolset

## CA Gen Server Runtime

- > On Unix / Linux Server, provided by:
  - I.T.
- > On z/OS, provided by
  - I.T. OR Encyclopedia

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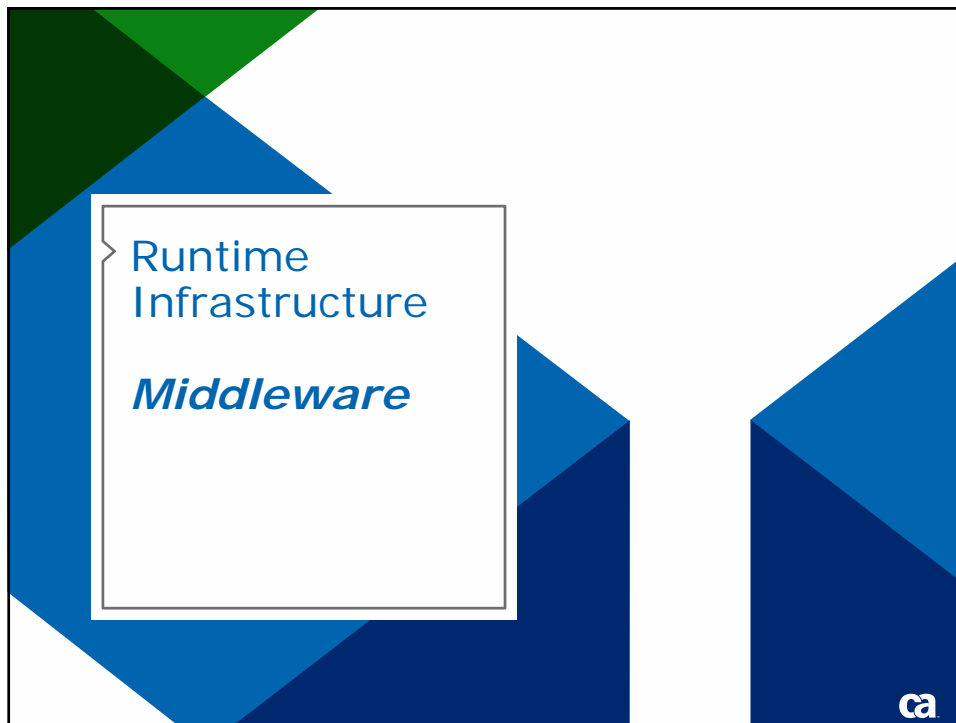
## CA Gen Proxy and Web Runtime

- > Runtimes are also provided on the deployment platforms for the various CA Gen Proxies as well as that for the Web Generation

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## Middleware

- > In CA Gen terms, the 'Middleware' are those components that facilitate the remote procedure calls across the physical network in to a CA Gen server application.
- > Typically there are multiple components that make up the middleware depending upon the exact nature of the target network topology.

## 'Client' Middleware

### > Client Middleware

- Licensed per end user
- Is a separate, distinct windows application that requires deployment and management

### > Middleware TCP/IP

- Tiered Server License – unlimited end users
- Tied to I.T. for chosen server platform
- Is part of the generated windows application and as such does not need to be deployed or managed separately

The 'break even' point is around 150 users

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## 'Client' Middleware

### > Middleware MQ Series for Windows

- Requires Middleware MQ Series for target server
- 'hidden cost' of IBM MQ Client Software

### > Middleware Tuxedo for Windows

- Requires Middleware Tuxedo for target server

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## 'Proxy / Web' Middleware

### > Communications Base Manager

- Provides the networking functionality for all the Proxy Programming Interfaces and Web Generated applications
- License tied to I.T. for chosen server platform

### > Mandates a middleware of choice

- TCP/IP, MQ, Tuxedo, ECI, RMI/IIOP, .NET Remoting
- License tied to I.T. for chosen server platform

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## Server Middleware (z/OS)

### > Middleware MQ Series for z/OS

- Requires Middleware MQ Series for Windows
- License tied to I.T. for chosen server platform

### > TCP/IP Direct Connect to CICS

- License tied to I.T. for chosen server platform

### > TCP/IP Direct Connect to IMS

- License tied to I.T. for chosen server platform

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## Server Middleware (Distributed)

### > Middleware Tuxedo

- License tied to I.T. for chosen server platform
- Used for connecting to a Tuxedo Server

### > Communications Bridge Server

- Handles incoming connections from clients
- Converts from TCP/IP to LU6.2 if required
- Can be used for other server environments

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## Server Middleware (Distributed)

### > Middleware TCP/IP

- License tied to I.T. for chosen server platform

### > Middleware CICS ECI

- License tied to I.T. for chosen server platform
- Used for connecting to a CICS Transaction Gateway
  - CTG can be on Host or Distributed

### > Middleware MQ Series

- License tied to I.T. for chosen server platform
- Used for connecting to an MQ Server
  - MQ Servers can be on Distributed or MF Platforms

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## Server Middleware (Distributed)

### > Transaction Enabler User Funnel

- Licensed ***per physical server*** on which the software is deployed
- Used for connecting to a Transaction Enabler Daemon

### > Transaction Enabler

- Licensed ***per physical server*** on which the software is deployed
- Used for invoking server transactions

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## Server Middleware (Distributed)

### > CFB Converter Service to EJB

- Functionally similar to the Communications Bridge Server
- Converts incoming TCP/IP traffic from a client side CFB application (Windows Client , Proxy or Web application) to RMI/IIOP
- This Product is Licensed per physical server

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## New at CA Gen r8.0

### > CA Gen Studio

- Provided with Workstation Toolset at no extra charge
- Includes diagrams new to R8.0
  - PStep Interface Designer
    - Bundled with EJB Generation
  - Web Service Access Designer
    - Part of Gen Studio and covered under the Workstation License
  - Web View UI Generation

## New at CA Gen r8.0

### > Web View

- Supplementary to existing Web Generation capability and included in the Web Gen License

### > Web Service Access

- Part of Gen Studio and covered under the Workstation License

### > EJB Web Services

- Enhancement to existing EJB generation capability

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## New at CA Gen r8.0

### > HP Integrity Platform (Itanium) CSE [Oracle]

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