



MAF ICIMS™

Preparing an Installation with CUCM

November 2017

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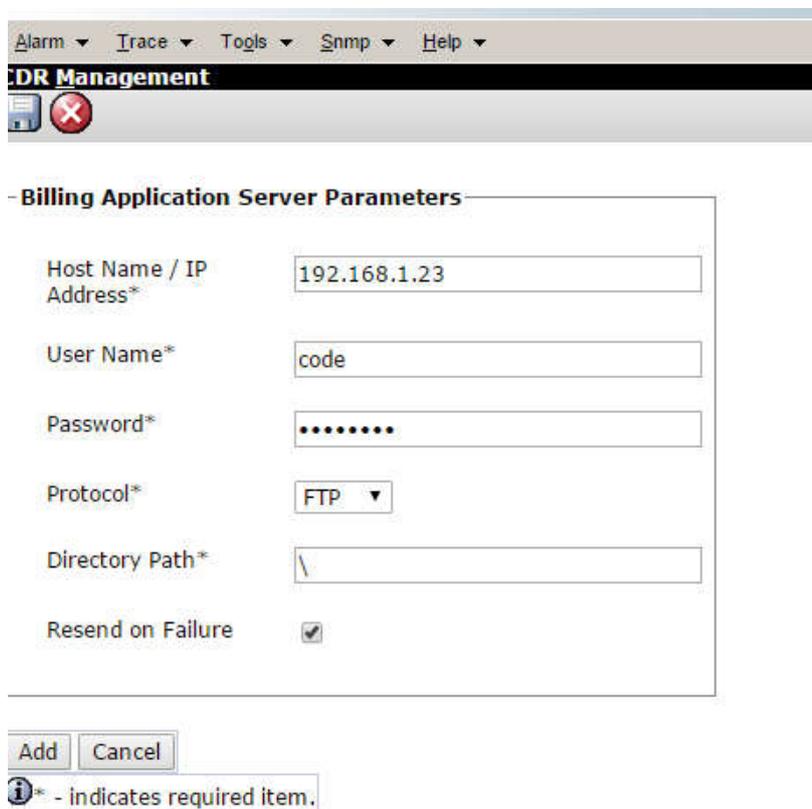
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Preparing a MAF ICIMS™ Installation

1. Collecting Calls from the CUCM Server:

Mandatory:

- 1.1 CUCM version;
- 1.2 CUCM IP address, CUCM administrator user, CUCM administrator password;
- 1.3 The firewall should allow a FTP connection (port 21) between the MAF ICIMS™ computer and the CUCM server.
- 1.4 On the MAF ICIMS™ server, create an FTP site in IIS, write down a user and a password.
- 1.5 In Cisco Serviceability->Tools->CDR Management, point Cisco to send CDR's to MAF ICIMS™ server: use the user/password defined at point 1.4



The screenshot shows a web-based interface for "DR Management". The title bar includes "Alarm", "Trace", "Tools", "Snmp", and "Help". The main content area is titled "Billing Application Server Parameters" and contains the following fields:

Host Name / IP Address*	192.168.1.23
User Name*	code
Password*
Protocol*	FTP
Directory Path*	\
Resend on Failure	<input checked="" type="checkbox"/>

At the bottom of the form, there are "Add" and "Cancel" buttons, and a legend: "i* - indicates required item."

- 1.6 CUCM Service activation

Activate CUCM CDR Service by going into Tools -> Service Activation. Check if the services are running using Tools -> Control Center- Network Services

The image shows two screenshots from the CUCM interface. The top screenshot is the 'Service Activation' page, showing a table of services with checkboxes and their activation status. The bottom screenshot is the 'Control Center - Network Services' page, showing a detailed table of running services with columns for Service Name, Status, Start Time, and Stop Time.

CDR Services		Activation Status
Service Name		
<input checked="" type="checkbox"/>	Cisco SOAP - CDRonDemand Service	Activated
<input checked="" type="checkbox"/>	Cisco CAR Web Service	Activated

Service Name	Status	Start Time	Stop Time
Cisco CDR Repository Manager	Running	Mon Feb 15 09:11:24 2016	0 days 02:47:30
Cisco CDR Agent	Running	Mon Feb 15 09:11:25 2016	0 days 02:47:29
Cisco CDR Scheduler	Running	Mon Feb 15 09:11:24 2016	0 days 02:47:28
Cisco SOAP - CallRecord Service	Running	Mon Feb 15 09:11:24 2016	0 days 02:47:18
Cisco CAR DB	Running	Mon Feb 15 09:11:27 2016	0 days 02:47:17

2. MAF ICIMS™ System Configuration:

Mandatory:

- 1.1 Information about the hierarchy levels that will be implemented;
- 1.2 Active Directory source with information about departments. This should contain the following:

Mandatory: Descriptions and the ancestor name (if there is a multi-level organization).

Optional: Department address.

- 1.3 Active Directory source with information about the employees. This should include the following:

Mandatory: userprincipalname, givenname, sn, mail, department/company attributes

- 1.4 Active Directory source with information about extensions/URI's. This should include:

Mandatory: Extension number (msRTCSIP-line,mail, userprincipalname, givenname, sn attributes.

- 1.5 Optional: Address, Employee ID, Location, Service.

- 1.6 Active Directory is used for importing the above information, provide the following:

- Server name, LDAP Base, LDAP port, LDAP Authentication type, User/Password and filter

- 1.7 Information about the SMTP server – IP/name, a valid user for it.

- 1.8 Information about the phone directories/phone directory groups used (phone numbers and assigned destination names for them).

3. Organization Hierarchy

Firstly, the organization hierarchy must establish the direct relationships between the data sets. A simple example would be:

Organization → Division → Department → Employee → Extension → Device
 (Tel Inc → Enterprise → Support → Joe Bloggs → 88001 → Phone)

*Hierarchy levels vary depending on the company structure.

4. Hierarchy Relationship

Once the organizational hierarchy is established, the categories need to be defined for each hierarchy level. A simple example of Hierarchy data sets is presented in the following example:

Organization → Department → Employee → Extension

Organization

Organization
MAF

Division

Division Name	Organization
Enterprise	MAF
Information	MAF

Department

Department Description	Division Name
Support	Enterprise
Development	Information

Employee

Employee ID	Employee Name	Employee Surname	Email	Department Name
100	Joe	Bloggs	Joe.BLoggs@mafinfo.com	Support
101	Tony	Platt	Tony.Platt@mafinfo.com	Development

Extension

Extension	Extension Type	Employee
1000	1 Phone	100 Joe Bloggs
1001	2 Fax	100 Joe Bloggs

Extension "1000" is assigned to Employee "100" (Joe Bloggs). This Employee is part of the Department "Support". This Department of the "MAF" Organization.

5. Tariff Relationship

In order to successfully rate CDRs, Tariffs must be set up appropriately. Tariffs will be linked directly to Trunk Groups for rating purposes. The tariffs will require carrier costs (e.g. 10 pence per minute, 5 pence connection charge, etc.), price bands (peak, off-peak, weekend, etc.) and destinations (local, International, mobile, etc) in order to calculate costs based on call time, duration and destination. An example is provided below:

Gateways

Gateway	Number of Trunks	Name
128	20	Mobile
135	30	MPLS

Carrier

Trunk Group	Carrier
128	Tel Mob
135	Tel Inc

Tariff

Carrier	Dest Code	Days	Start Time	End Time	Initial Charge	Charge (per min)	Destination Type
Tel Inc	Zone1	1-5	08:00	18:00	0.50	0.30	International
Tel Inc	Zone1	1-5	18:00	08:00	0.25	0.10	International
Tel Mob	Zone1	1-7	00:00	24:00	2.50	0.20	International

Prefix

Prefix	Description	Dest Code
001	USA	Zone1
0800	Free	Free

Destination Type

Destination Code	Description
INTL	International
LOCAL	Local
UNDEFINED	Undefined

A call is made at 11AM through trunk 135 to a destination beginning with 001. The call is routed through trunk group "135" which is charged by the "Tel Inc" carrier. The call destination has "001" prefix (Zone1) and the call was made between "08:00-18:00" (Peak). Therefore, the call is charged at the "Peak" rate, for "Tel Inc" Carrier with "Zone1" Dest Code. The call will be charged at 0.30 per min plus a 0.50 initial charge.

In regard to rating calls, if more than one tariff is to be used for rating trunks belonging to the same trunk group, this can be set up if required (e.g. a trunk group has 50 trunks; however 20 trunks are rated against Tariff A and the other 30 trunks are rated against Tariff B). This will simply require the range of trunks or list of specific trunks along with the tariffs for them to be rated against.

6. Processing and charging calls:

Mandatory:

- 1.9 Information about the used tariff/tariffs: the Phone Network Operator that is used;
- 1.10 Information about the charges to locals, area, international destination types – the prefixes and the charges/minute (or any other used resolution) will be needed;

7. Reporting

- 1.11 The main currency in which CDR's will be calculated should be provided.
- 1.12 If specific reports are required, please provide a list with the name of the reports along with the criteria that they should meet – e.g. Report to show all outgoing calls made by employee "Joe Bloggs".
- 1.13 If specific report formats are required, please provide the reporting criteria in which you would like it to be available – e.g. Report to show extension number, ring time, employee id, employee name, time of call.

*The reports and report templates can be generated at a later stage as necessary.

8. Generating/Sending Reports via E-mail

Mandatory:

- 1.14 In order to send MAF ICIMS™ reports via e-mail, certain information will be needed about the used method. If SMTP is used, the server name and a user for authentication are required.

9. Scheduled Reports

In order to deliver scheduled reports, the following information needs to be provided:

- 1.15 A list of reports that require scheduling, the recipients of each report and also the frequency of each report;
- 1.16 To send reports via e-mail, information about the delivery method used will be required (e.g. SMTP - server name and user authentication details);
- 1.17 To save reports to a specific location, the format (PDF, XLS, DOC, etc) and directory location needs to be provided.

10. Additional Information

- 1.18 If there are any further requirements that need to be set up, additional information must be provided for them also (e.g. if selected employees need to be set up as part of a project; employees with certain security levels - full admin rights/administrator, only rights to run pre-defined reports, ability to edit reports, etc); any additional taxes/one-off charges; special days where an exceptional charge rate is required; additional currencies to be used).

About MAF InfoCom™

MAF InfoCom™ is a leading innovative technology provider with almost 20 years' experience in delivering products and services for Monitoring, Analytics, Reporting and Recording of telephony and Unified Communications, Call Management, Call Accounting & Telecom Expense Management.

We serve tens of thousands customers around the globe, in a large variety of branches. We have installations in over 50 countries ranging from SME's to multi-national global enterprises. In Europe MAF InfoCom™ is number 1 in Call Management, Call Accounting & Telecom Expense Management.

With our latest developments MAF ICIMS™ and MAF UCR™ Monitoring, Analytics, Reporting & Recording solutions for Skype for Business and Unified communications we expand our sales across the globe rapidly. Our solutions also work with every other major (IP)PBX and UC manufacturer platform like Cisco, Mitel, Avaya, Alcatel-Lucent etc.

Our solutions are offered from the Cloud, On-Premises and Partner Hosted to enable our customers and partners to choose the best model for their needs.

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