

Comtarsia Web Gateway 2012

Manual

Version: 6.0.1.80, May 10, 2013

Table of Contents

| 1. | Description | 3 |
|-----|--------------------------------------|----|
| 1.1 | Prerequisites | 3 |
| 1.2 | Installation | 4 |
| 1.3 | Uninstallation | 5 |
| 2. | Configuration | 6 |
| 2.1 | General | 6 |
| 2.2 | Proxies | 6 |
| 2.3 | Sites | 7 |
| 2.4 | Site Modules | 7 |
| 2.4 | .1 Sync Client | 7 |
| 2.4 | .2 CookieSession | 7 |
| 2.4 | A.3 HTTPAuth | 7 |
| 2.4 | A.4 CA Service Desk | 8 |
| 2.4 | 9.5 Туро3 | 8 |
| 2.5 | IIS Configuration | 9 |
| 2.6 | Logging | 9 |
| 2.7 | Licensing | 10 |
| 3. | Example Configuration | 11 |
| 3.1 | As WebSyncClient | 11 |
| 3.1 | .1 Comtarsia SignOn Proxy | 11 |
| 3.1 | .2 Site configuration | 12 |
| 3.1 | .3 IIS configuration | 14 |
| 4. | The SOAP interface | 18 |
| 4.1 | Requirements | 18 |
| 4.2 | Web Gateway 2012 SOAP definitions | 18 |
| 4.3 | Java SOAP-Client development example | 21 |
| 4.3 | B.1 Preparation | 21 |
| 4.3 | B.2 Application | 22 |
| 5. | Manual IIS configuration | 23 |
| 5.1 | Prerequisites | 23 |
| 5.2 | ISAPI and CGI Restrictions entry | 24 |
| 5.3 | Whole Site Configuration | 27 |
| 5.4 | Virtual Directory Configuration | 30 |
| 6. | Disclaimer | 35 |

1. Description

Comtarsia Web Gateway 2012 for Windows

Primary web authentication via password or Smart Card and single sign on for all web applications.

The module Comtarsia SignOn Proxy is used for the LDAP or Active Directory authentication, the module Comtarsia SignOn Agent is used for the automatic User Managment and password synchronization for Active Directory, LDAP or Windows System.

Build 6.0.1.80



For more information about the Comtarsia SignOn Solutions, please refer to our homepage:

http://signon.comtarsia.com

1.1 Prerequisites

- Windows Server 2008 X86 und X64 [IIS 7.0]
- Windows Server 2008 R2 X64 [IIS 7.5]
- Windows Server 2012 X64 [IIS 8.0]

FA1

1.2 Installation

An installation or an update is done using the installation program "SOS2012-6.0.x.4.exe". When updating, the configuration is preserved and the license key will only be replaced if the validity of the installed key is shorter than the validity of the key shipped with the installation program. (Bought license keys usually won't be replaced.)

| SIGNON SOLUTI | Installation | - Andrewski | |
|---------------------------------|------------------|----------------|--------|
| Choose the features you want to | o install: | | _ |
| Logon Client | | Build 6.0.1.0 | 0 |
| SignOn Proxy | | Build 6.0.1.50 | 0 |
| □ SignOn Agent for A | Active Directory | Build 6.0.1.40 | 0 |
| SignOn Agent for I | DAP | Build 6.0.1.41 | 0 |
| □ SignOn Agent for \$ | System Windows | Build 6.0.1.42 | 0 |
| LDAP Directory Re | plicator | Build 6.0.1.60 | 0 |
| Web Gateway | | Build 6.0.1.80 | 0 |
| | | | |
| Remove features Show MS | Back | Install | Cancel |

Note: The "Internet Information Server" (IIS) will be restarted during the installation!

Only the files will be copied during the installation. The actual installation is performed via the configuration utility which is started automatically during the installation.

1.3 Uninstallation

Note: The "Internet Information Server" (IIS) will be restarted during the uninstallation process!

The entire Comtarsia Web Gateway 2012 configuration is removed during the uninstallation process!

2. Configuration

All configurations can be done with the "Web Gateway Configurator".

2.1 General

The general tab contains global settings

| General Proxies Sites IIS Configuration Logging About Licensing | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Compression Enable compression Compression level: 6 Good (default) | Smartcard user attribute: Logout redirection URL: | cn %PROTOCOL%:// | stw2k3en8.adsdom8.comtarsia.com:%P0RT%/A | | |
| Advanced disable HTTP-KeepAlive Outgoing Connections Max Connections per Server HTTP 1.1: 0 HTTP 1.0: 0 Receive | \$ 0 0 : 0 | Cookies Expiration (s): Cookie path: Cookie domain: | 36000 Image: Second constant | | |

Compression

Compressing the data to the client

Smartcard user attribute

This option defines the attribute of the client certificate that contains the username which is utilized for the smart card logon.

2.2 Proxies

Under this tab one or more Comtarsia SignOn Proxy Servers are defined which are used for authentication and password synchronization.

| General Floxies Sites Sites IIS Configuration Cogging About Licensing | | | | |
|-----------------------------------------------------------------------|--------------------|------------|----------------------------------------------------------|--|
| Proxy entries | | | | |
| Add New Delete | General Proxy para | ameters | SSL/TLS Options | |
| ProxyLocal | Entry name: | ProxyLocal | TLS CA file: C:\Program Files\Comtarsia\Web Gat | |
| | Proxy host: | 127.0.0.1 | TLS CA directory: | |
| | Proxy port: | 2003 | TLS certificate file: C:\Program Files\Comtarsia\Web Gat | |
| | SyncPacket TTL: | 10 | TLS key file: C:\Program Files\Comtarsia\Web Gat | |
| | Filter Username: | | Trust Options | |

1 And

2.3 Sites

Under Sites, the single target applications accessed through the Comtarsia WebGateway are configured.

| General Proxies Sites IIS | Configuration Logging | About Licensing |
|------------------------------------------|-----------------------|------------------------------------------------------------|
| Site entries Add New Delete | General Parameters Au | thentication Target Login Target Logout Forwarding Content |
| AppChooser authdir horde moodle | Entry name: | AppChooser Disabled |
| typo3 webmail WebUntis | Site module: | CookieSession |
| | Matching host: | |
| | Matching URL: | /AppChooser |
| | Module alias: | SC |
| | | Use Access Control |

2.4 Site Modules

An application requires an appropriately configured module which handles the user authentication between Comtarsia WebGateway and the respective application.

The following site modules are available:

2.4.1 Sync Client

Simple logon and/or password change as well as password synchronization via Comtarsia SignOn proxy server.

This functionality is in each module represented (which supports a logon) The "Module alias" supports additionally following get-parameters:

| ?LOGOUT | Sets logout cookies of all configured applications and redirects the |
|---------|----------------------------------------------------------------------|
| | Client to the global "logout" site (global logout) |

?SESSIONS displays information about all current sessions.

?SESSIONINFO displays information about the current user session.

The module alias is invoked via following URL: http://<server>/<MatchingURL>/<ModuleAlias>?<GET-Parameter>

2.4.2 CookieSession

Forwarding of the content of a target page. Detection of a login page and logon performance using "Sync Clients". Logon information are transmitted via post to the target system. Detection of a logout page and setting of defines cookies by recognized logout.

Page 7/35

2.4.3 HTTPAuth

Content forwarding of the target page.

Logon via HTTPAuthentication Header.

2.4.4 CA Service Desk

As CookieSession, represents however CA Service Desk specifical login handling.

2.4.5 Typo3

As CookieSession, represent however Typo3 specifical login handling.



2.5 IIS Configuration

Defines the areas for which Comtarsia WebGatway should be active.

| General Proxies Sites IIS Configuration L | ogging About Licensing | | | | |
|-------------------------------------------|---------------------------------------------------|--|--|--|--|
| Changes on this page will affect IIS imm | Changes on this page will affect IIS immediately! | | | | |
| Allow Comtarsia Web Gateway 2008 IIS Ext | iension | | | | |
| Web Sites | | | | | |
| Default Web Site Comtarsia WebClient | | | | | |
| | | | | | |

Comtarsia WebGateway can be activated for entire sites or specific areas of the site (virtaul directories).

2.6 Logging

| Configuration of | f the log release. |
|---------------------------|----------------------------------------------------------------------|
| General Proxies Sites | IIS Configuration Logging About Licensing |
| | |
| Loglevel: | + Debug |
| Detail Log Flags | |
| | 🔽 Dump Config |
| | 🔲 log Process Information (PI) |
| PI intervall: | 100 |
| | |
| Log filename: | C:\Program Files\Comtarsia\Web Gateway 2008\logs\WebGateway.log Open |
| Max logfile size (bytes): | 10485760 *= 1024 |
| Max logfile history: | 1 |
| | Enable log transactions |
| | |
| | |

Especially during the configuration phase, extensive log output can be of great help.

However, during normal operation, the log output should be lowered to keep response times to a minimum.



2.7 Licensing

Displays the currently installed license.

| General Proxies Sites IIIS Configuration Logging About Licensing |
|------------------------------------------------------------------|
| ET Granted: 20.08.2009 11:41:42 |
| Comtarsia SignOn Solutions Licence Key Customer: Testkey |
| Valid Until 31st October 2003 |
| |
| Applications: 1 |
| Expiration: 31.10.2009 10:41:42 |
| Order new license key Load another license key |

A new licence key can loaded by using the button "Load another license key".



3. Example Configuration

3.1 As WebSyncClient

Three configuration steps are necessary to use the Comtarsia Web Gateway 2012 as WebSyncClient. These steps are explained as follows.

3.1.1 Comtarsia SignOn Proxy

Configuration of Comtarsia Signon proxy, used for the user synchronization. The SignOn Proxy server configuration is carried out in "Proxies"-tab.

| General Proxies Sites IIS Configuration Logging About | | | | |
|-------------------------------------------------------|--------------------------|------------------------------------|--|--|
| Proxy entries | | | | |
| Add New Delete | General Proxy parameters | SSL/TSL Options | | |
| | Entry name: | TSL CA file: | | |
| | Proxy host: | TSL CA directory: | | |
| | Proxy port: | TSL certificate file: | | |
| | SyncPacket TTL: | TSL key file: | | |
| | | TSL options: | | |
| | Filter Username: | Trust Options | | |
| | | Certificate OID's Certificate FQDN | | |
| | | | | |
| | | | | |
| 1 | | | | |

Fig. 1.

A new entry in the list of SignOn Proxy server is inserted by using the button "Add New".

| General Proxies Sites IIS Configuration Logging About | | | | |
|-------------------------------------------------------|--------------------|-----------|-----|----------------------------------------------------------|
| Proxy entries | | | | |
| Add New Delete | General Proxy para | meters | 1 [| - SSL/TSL Options |
| Proxy1 B | Entry name: | Proxy1 | | TSL CA file: C:\Program Files\Comtarsia\Web Gat |
| F | Proxy host: | 127.0.0.1 | | TSL CA directory: |
| F | Proxy port: | 2003 | | TSL certificate file: C:\Program Files\Comtarsia\Web Gat |
| | SyncPacket TTL: | 10 | | TSL key file: C:\Program Files\Comtarsia\Web Gat |
| | | | | TSL options: 0 |
| F | Filter Username: | | | Trust Options |
| | | | | Certificate OID's Certificate FQDN |
| | | | | simple |
| | | | | |

Fig. 2

A new entry receives automatically a randomly generated name, which can be changed in the field "Entry Name".

LAN

"Proxy Host" defines the IP address or hostname of the SignOn Proxy Server.

"Filter Username" defines one or more initial letters of the user name required to be able to synchronize on the proxy server.

The supplied test certificates are automatically entered under SSL / TLS option and can be adjusted if necessary.

3.1.2 Site configuration

The site constitutes a configuration unit to which one or more SignOn Proxy servers can be assigned. If multiple SignOn proxy servers have been assigned to the site, it must be defined using "Filters User Name" (in the proxy configuration) which users are permitted for which proxy. In this illustration of configuration it is assumes that all users utilize the same, thus only one SignOn proxy server for synchronization.

| General Proxies Sites IIS | Configuration Logging About | |
|---------------------------|-----------------------------|---------------------------|
| Site entries | | |
| Add New Delete | General Site parameters | |
| | Entry name: | Matching host: |
| | Site module: | Matching URL: |
| | | Module alias: |
| | | |
| | Module configuration | |
| | Destination host: | Proxies for site |
| | Destination port: | Available proxies: Proxy1 |
| | Login detect text: | |
| | | Add Remove |
| | | Active proxies: |
| | | |

Fig. 3

A new default site configuration is created by clicking the button "Add New".

| General Proxies Sites [19 | Configuration Logging About | |
|---------------------------|-----------------------------|---------------------------|
| Site entries | | |
| Add New Delete | General Site parameters | |
| Site 7011 | Entry name: Site_7011 | Matching host: |
| Sile_7011 | Cite madule: | Matakina LIPL |
| | site module: Sync Client | |
| | | Module alias: |
| | | |
| | Module configuration | |
| | Destination host: | Proxies for site |
| | | Available proxies: Proxy1 |
| | Destination port: | |
| | Login detect text: | |
| | | Add Bemove |
| | | Active provies: |
| | | Active provies. |
| | | |
| | | |

Fig. 4

The site automatically gets a random name assigned, which can be modified in the "Entry name" text field.

| General Proxies Sites IIS | Configuration Logging About | |
|---------------------------|-----------------------------|---------------------------|
| Site entries | | |
| Add New Delete | General Site parameters | |
| Site1 | Entry name: Site1 | Matching host: |
| | Site module: Sync Client | Matching URL: |
| | | Module alias: |
| | | |
| | Module configuration | |
| | Destination host: | Proxies for site |
| | Destination port: | Available proxies: Proxy1 |
| | Login detect text: | |
| | | Add Remove |
| | | Active proxies: |
| | | |



By using the function "Site Modules" an active module for the respective site configuration can be set. In this case, the site module is "Sync Client".

The function "Proxies for site" defines which SignOn proxy server for this site should be activated. For this purpose one selects a proxy from the list of "Available proxies" and clicks the button "Add". By using the "Remove" button the selected SignOn Proxy will be removed from the list of active proxies.

At least one proxy must be assigned.

| General Proxies Sites IIS | Configuration Logo | ing About | | |
|---------------------------|--------------------|-------------|---------------------------|-----------|
| Site entries | | | | |
| Add New Delete | General Site paran | neters | | |
| Site1 | Entry name: | Site1 | Matching host: | |
| | Site module: | Sync Client | Matching URL: | |
| | | | Module alias: | |
| | | | | |
| | Module configurati | ion | | |
| | Destination host: | | Proxies for site | |
| | Destination port: | | Available proxies: Proxy1 | |
| | Login detect text: | | | |
| | | , | A | dd Remove |
| | | | Active proxies: Proxy1 | |
| | | | | |
| | | | | |

Fig. 6

Note: If more than one SignOn Proxy Server is active, no load-balancing or failover is performed, but the "active proxies" are only admitted to this site and the selection of which proxy SignOn eventually will be used for synchronization will be done via the function "Filter Usernames".

| General Proxies Sites IIS | Configuration Logging About | | |
|---------------------------|---------------------------------------|---------------------------|--|
| Site entries | | | |
| Add New Delete | General Site parameters | | |
| Site1 | Entry name: Site1 | Matching host: | |
| | Site module: Sync Client | Matching URL: | |
| | | Module alias: webClient | |
| | | | |
| | Module configuration | | |
| | Destination host: | Proxies for site | |
| | Destination port: | Available proxies: Proxy1 | |
| | · · · · · · · · · · · · · · · · · · · | | |
| | Login detect text: | | |
| | | Add Remove | |
| | | Active proxies: Proxy1 | |
| | | | |
| | | | |



If several different site configurations are used, it can be defined by "matching host" and "matching URL" when the respective site configuration will be activated after a request. These values do not define how to access the module, but merely represent a "filter function".

For this configuration example, the two values are simply left blank.

In addition, also a "Module Alias" can be defined, which is used to invoke ISAPI module. The "Module Alias" can be entered instead of the ISAPI DLL (see also IIS configuration).

3.1.3 IIS configuration

The Comtarsia Web Gateway 2012 module for IIS can be enabled in the tab "IIS Configuration" and assigned to the respective sites.

Note: changes on this page are instantly avtive.

| General Proxies Sites IIS Configuration Logging About | | |
|-------------------------------------------------------|--|--|
| Changes on this page will affect IIS immediately! | | |
| Allow Comtarsia Web Gateway 2006 IIS Extension | | |
| Veb Sites Default Web Site | | |

Fig. 8

In general, to be able to use the Comtarsia Web Gateway 2012, it must be registered in IIS as "allowed Web Service Extension". This is done by check box "Allow Comtarsia Web Gateway 2012 IIS extension".

| aeneral Proxies Sites IIS Configuration Logging About | |
|-------------------------------------------------------|--|
| Changes on this page will affect IIS immediately! | |
| Allow Comtarsia Web Gateway 2006 IIS Extension | |
| Web Sites | |
| Default Web Site | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Fig. 9

The web sites configured in IIS are illustrated in the field "Web sites".

Fig. 10

By selecting one IIS web site, configuration options are shown. In the most cases, it is sufficient to create a "Virtual Web Gateway Virtual Directory". For this purpose, enter the path under "Web Gateway Directory -> name" (see Figure 10).

E.g. WebSyncClient



Fig. 11

This virtual directory is configured via the button "Add" for the selected IIS Web site.

Note: Functions which require direct access to IIS modules have to be created as virtual directory, e.g.: Web Sync Client, SOAP interface, status side.

| General Proxies Sites IIS Configuration L | ogging About |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Changes on this page will affect IIS imm Allow Comtarsia Web Gateway 2006 IIS Ext Web Sites Default Web Site WebSyncClient | ediately! ension Enable WebGateway for the whole Site WebGateway Directory Name: WebSyncClient Add Delete |
| | The URL of the WebSyncClient module of this Virtual Directory is: http://stw2k3en8.adsdom8.comtarsia.com/81/WebSyncClient/ComtWebGateway.dll |

Fig. 12

The module will be then available under:

http(s)://<site-host:port>/<Web Gateway Directory>/ComtWebGateway.dll In the case that also a "module alias" for the site is defined (see <u>Configuration of</u> <u>the site</u>), the module can be additionally be invoked under: http(s)://<site-host:port>/<Web Gateway Directory>/<Module Alias>

In order to facilitate the tracing, a valid URL will be detected by means of IIS configuration. This URL is shown on the right side when configured virtual directory is selected.

Note:

Although the "Comtarsia web gateway 2012" IIS Extension is already activated in IIS at this point, also the "Web gateway "configuration has to be undertaken by means of the "Apply" button.



Via the indicated URL the module can be displayed and the configuration be tested.



4. The SOAP interface

The SOAP interface enables incorporating the functionality of the Comtarsia Web gateway 2012 Sync Client module into its own applications.

The file "ComtWebGateway.dll" functions at the same time as SOAP server. The module has to be directly available in order to be able to use the SOAP interface, attainable. This is possible by creating a "Virtual Web gateway directory "over the tab "IIS Configuration ". If necessary, additional alias for the access to "the ComtWebGateway.dll "-module in tab "Site configuration" can be created. This can be useful if existing SOAP applications apply to fix URL.

4.1 Requirements

It must be possible to access ISAPI DLL of the Comtarsia Web gateway over HTTP directly (corresponds to the virtual Web gateway directory in the IIS tab). A SOAP client API has to be available for the development.

Some development environments are delivered by default with SOAP support, or can be extended with simple means with a SOAP API (e.g.: PHP, .NET, Java)

The WSDL¹ document, which is used for the automated creation of the WebSyncClient SOAP interface, can be invoked over the following URL: http://<server>[:port]/<virtual directory>/ComtWebGateway.dll?WSDL

The WSDL document describes the available functions, parameters and restoration values.

1. Abb. WSDL = Web Services Description Language.

4.2 Web Gateway 2012 SOAP definitions

ComtarsiaWebSyncClient cwsc = new ComtarsiaWebSyncClient(); SyncResponse_1 sr = cwsc.doSync_1(USERNAME, PASSWORD, NEWPASSWORD, LOGON DOMAIN, ACTION);

| // Values for Action | |
|----------------------------------------------|----------------------------|
| #define ACTION_AUTHENTICATE | 0 |
| #define ACTION_PWD_CHANGE | 1 |
| <pre>// Return values for "sr.status":</pre> | |
| #define E_SUCCESS | 0x0 |
| #define E ILLEGAL REQUEST | 0x10 |
| #define E SYNC TIMEOUT | 0x11 |
| #define E SYNC USER | 0x12 |
| #define E_AUTHENTICATION | 0x13 |
| #define E_COMMUNICATION | 0x14 |
| // LastErr ERRORCODES return value | is always E RETVAL SUCCESS |
| #define E INTERNAL | 0x200 |
| #define E_NETWORK | 0x100 |

Page 18/35

| // Error Codes: | |
|-----------------------------------------------------------------------------------------|-------------------------------------|
| #define E_LASTERR_COMT_RSA_VERSION | (E_INTERNAL + 1) |
| // Error reading reagistry values #define E_LASTERR_REGISTRY | (E_INTERNAL + 2) |
| // Unknown Smem FLAG value #define E_LASTERR_UNKNOWN_FLAG_VAL | (E_INTERNAL + 3) |
| // Wsastartup problem #define E_LASTERR_WSASTARTUP | (E_INTERNAL + 4) |
| <pre>// Proxy and ComtSyncClient encryption typ #define E_LASTERR_ENCRYPTION_TYPE</pre> | es do not match (E_INTERNAL + 5) |
| // RSA aquire context error #define E_LASTERR_RSA_AQUIRE_CTX | (E_INTERNAL + 6) |
| // Some error with an RSA KEY occured #define E_LASTERR_KEY | (E_INTERNAL + 7) |
| // PROXY name can not be resolved #define E_LASTERR_RESOLVING_PROXY | (E_NETWORK + 1) |
| // Connect problem to PROXY #define E_LASTERR_CONNECT | (E_NETWORK + 2) |
| // Receive error #define E_LASTERR_RECEIVE | (E_NETWORK + 3) |
| // Send error #define E_LASTERR_SEND | (E_NETWORK + 4) |
| // Socket creation problem #define E_LASTERR_SOCKET_CREATION | (E_NETWORK + 5) |
| // Header check failed illegal or not expe | cted message head |

// Header check failed illegal or not expected message header
#define E_LASTERR_ILLEGAL_MSG_HEADER (E_NETWORK + 6)

| // Return values for "sr.statusAuth": | |
|-------------------------------------------------------------|--------|
| /* comt ldap return values */ | |
| #define COMT LDAP RC SUCCESS | 0x00 |
| #define COMT_LDAP_RC_ERROR | 0x01 |
| #define COMT LDAP RC WRONG PWD | 0x02 |
| #define COMT_LDAP_RC_PWD_EXPIRED | 0x03 |
| #define COMT LDAP RC PWD POLICY VIOLATION | 0x04 |
| #define COMT_LDAP_RC_USERID_REVOKED | 0x05 |
| #define COMT_LDAP_RC_USERID_UNDEFINED | 0x06 |
| #define COMT_LDAP_RC_NO_SUCH_OBJECT | 0x07 |
| #define COMT LDAP RC WRONG VERSION | 0x11 |
| #define COMT_LDAP_RC_MISSING DATA | 0x12 |
| #define COMT_LDAP_RC_UNSUPPORTED | 0x13 |
| | |
| <pre>/* comt_ldap communication error return code */</pre> | |
| #define COMT_LDAP_RC_COM_ERROR | 0x1A |
| | |
| /* ietf error codes and warnings */ | |
| #define COMT_LDAP_RC_IETF_WARN_EXPIRE | 0x20 |
| #define COMT_LDAP_RC_IETF_WARN_GRACE | 0x21 |
| /* jotf ormer godes have to start at offect | |
| COME LDAD DO TEME EDDOD CHADE because they are directly man | mad * |
| #define COMT LDAD BC TETE EDDOD START | peu ", |
| #define COMT_DDAP_RC_IEIF_ERROR_START | 0230 |
| #define COMT_LDAF_RC_IEIF_ERROR_EAFIRED | 0x30 |
| #define COMT_LDAP_RC_IEIF_ERROR_ACC_LOCKED | UXSI |
| #define COMT_LDAP_RC_IEIF_ERROR_CHG_RESEI 0X32 | 0 2 2 |
| #define COMT_LDAP_RC_LEIF_ERROR_NO_MOD | 024 |
| #define COMI_LDAP_RC_IEIF_ERROR_NEED_OLD_PWD | 0x34 |
| #deline COMT_LDAP_RC_LETF_ERROR_INVALID_SINTAX | 0x35 |
| #define COMT_LDAP_RC_LETF_ERROR_PWD_TOO_SHORT | 0 |
| #deline COMT_LDAP_RC_IETF_ERROR_PWD_TOU_YOUNG | 0x37 |
| #deline COMT_LDAP_RC_LETE_ERROR_PWD_IN_HISTORY | UX38 |
| // Return values for "sr domains[i] status". | |
| #define E SYNC SUCCESS 0x1 | |
| | |

| " ac I IIIC | L DINC DOCCLDD | 0111 |
|-------------|---------------------|------|
| #define | E SYNC ERROR | 0x2 |
| #define | E NO SYNC AGENT | 0x4 |
| #define | E SP PROXY TIMEOUT | 0x8 |
| #define | E SP AGENT TIMEOUT | 0x10 |
| #define | E SP AUTHENTICATION | 0x20 |

// Return values for "sr.domains[i].action":

| #define | SA_USER_ENABLED | 0x1 |
|---------|----------------------|------|
| #define | SA_USER_PW_SET | 0x2 |
| #define | SA_USER_DELETED | 0x4 |
| #define | SA_USER_CREATED | 0x8 |
| #define | SA_USER_GRP_ADDED | 0x10 |
| #define | SA_USER_GRP_DELETED | 0x20 |
| #define | SA_USER_OU_MOVE | 0x40 |
| #define | SA_USER_INFO_UPDATED | 0x80 |
| | | |

4.3 Java SOAP-Client development example

For the SOAP Client development examples, the following components are necessary:

- JDK 6 with Update 5 (SE) <u>http://java.sun.com/javase/downloads</u>
 Apache Axis 1.2 RC3
 - http://www.apache.org/dyn/closer.cgi/ws/axis/1 2RC3
- Comtarsia development examples for Axis <u>http://www2.comtarsia.com/public/wg2006_soap/devel-axis-1.2.zip</u> or
- Apache Axis2 1.3 <u>http://ws.apache.org/axis2/download/1_3/download.cgi</u>
- Comtarsia development examples for Axis <u>http://www2.comtarsia.com/public/wg2006_soap/devel-axis2-1.3.zip</u>

Between "Apache Axis "and "Apache Axis2 " there are some differences, why two different archives are provided, which compensate the changes primarily in the batch files in order to keep their actual application as simple as possible. Nevertheless, an additional step must be accomplished for "the Apache Axis2" example.

The Java source code of the supplied example functions as it follows: an invoke syntax is issued in case of an invalid number of command line parameters.

If you specify 2 parameters the first is used as a "user name" and the second as "password" to send a sync request to the "Web Gateway 2008 Comtarsia SOAP interface". Subsequently, the result is displayed in the command line.

If you specify 3 parameters, the third parameter is used as "new password". In this case the sync request to the "Web Gateway 2008 Comtarsia SOAP interface" has also set "change password" flag, as well as the "new password" field is filled accordingly. Subsequently, the result is displayed in the command line.

4.3.1 Preparation

• Installation of JDK 6

For the installation of JDK 6 should the instructions of the installation program be followed.

• When using the Apache Axis toolkit

• Installation Apache Axis

If the Apache Axis toolkit is used, it is sufficient to extract the downloaded archive. For example: c: $| java | axis-1_2RC3$

The batch files of the development example set the "Java class path "according to the configuration in the" vars.bat " during the execution.

It is recommended for further use to copy all ".jar"-files from Axis\lib directory into "<JDK-installation path>\jre\lib\ext". Hence, sharing of the class path is no longer necessary.

Preparing the "Comtarsia SOAP development example for Axis"
 Unpack the archive into a separate directory.
 eg: c:\Java\devel-axis2-1.3
 Configure the paths in the vars.bat

Unpack the archive into a separate directory.

eg: c:\Java\devel-axis2-1.3

Configure the paths in the vars.bat

4.3.2 Application

So far the steps were followed as described in the chapter "Preparation", there is no distinction necessary between "Apache Axis toolkit" and "Apache Axis2 toolkit".

The variables in the file "vars.bat" have to be set according to the configuration. Subsequently, it is enough to perform the appropriate step by executing each batch file.

First are SOAP basis classes of the "Comtarsia Web Sync Client SOAP" created by using "createClasses.bat".

These are generated by Axis or Axis2 respectively and are saved in a directory structure according to the namespaces.

Subsequent execution of the "buildSample.bat" creates a "comtSOAP.java" by the supplied data in the development example in "data" directory and the URL set in the "vars.bat", and compiles in consequence the generated Java source file.

The file "runSample.bat" is used to execute the compiled "comtSOAP.class", and presents to these the specified parameters. The syntax is as follows: runSample.bat <Username> <Password> [NewPassword]



5. Manual IIS configuration

This description is only for reference puropes. For normal Web Gateway usage, all needed steps are done with the Web Gateway Configurator.

5.1 Prerequisites

The Comtarsia WebGateway 2012 is an ISAPI module filter extension.

The following IIS Server Roles have to be enabled (additionally to the default selection) to allow proper configuration and operation of the Comtarsia WebGateway 2012.

Under: Web Server (IIS) \rightarrow Web Server \rightarrow Application Development \rightarrow

- ISAPI Extensions
- ISAPI Filters

| 2 | Add Roles and Features Wizard | _ D X |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| E Select server roles Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results | Add Roles and Features Wizard Select one or more roles to install on the selected server. Roles Web Server (IIS) (Installed) Web Server (Installed) Common HTTP Features (Installed) Health and Diagnostics (Installed) Performance (Installed) Security (Installed) Security (Installed) NET Extensibility 3.5 .NET Extensibility 4.5 Application Initialization ASP ASP.NET 3.5 ASP.NET 4.5 Set 2000 | DESTINATION SERVER WIN-M7IGJNG9BKE |
| | □ CGI ✓ ISAPI Extensions ✓ ISAPI Filters □ Server Side Includes | |
| | < <u>P</u> revious <u>N</u> ext | > Install Cancel |

The Comtarsia WebGateway 2012 can be configured to work within virtual directories, or to be active for a whole IIS site.

Either of those options requires the Comtarsia WebGateway 2012 ISAPI module to be added as an "allowed ISAPI module" to the ISAPI and CGI Restrictions list of the IIS server.

5.2 ISAPI and CGI Restrictions entry

Open the Internet Informations Services (IIS) Manager and navigate to the root entry of this IIS instance. (It is the entry with the hostname) Open the ISAPI and CGI Restrictions page.



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Right click into the view and select to add a new ISAPI or CGI Restriction.

Insert the path to the "ComtWebGateway.dll", set the description to "Comtarsia Web Gateway 2012", and enable "Allow extension path to execute". Click "OK" to add this entry.

| Add ISAPI or CGI Restriction |
|-----------------------------------|
| ISAPI or CGI path: |
| Description: |
| Comtarsia Web Gateway 2012 |
| ✓ Allow extension path to execute |
| |
| OK Cancel |

The Comtarsia WebGateway 2012 module is now allowed to be execute by the IIS.

| 9 | Inter | net Information | Services (IIS) Manager | _ _ X | | | |
|----------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| | | | | | | | |
| File View Help | | | | | | | |
| Connections | SAPI of Use this feature to the Web server. Group by: No Gr Description Comtarsia Web | and CGI Rest specify the ISAPI and ouping • Restriction Allowed | rictions I CGI extensions that can run on Path C:\Program Files\Comtarsia\S | Alerts The CGI module is not installed. You can specify CGI applications that are allowed to run, but they will not be able to run until the CGI module is installed. Actions Add Edit Feature Settings Help Online Help | | | |
| Configuration: 'localhost' appli | cationHost.config | | | ¶ <u>∄</u> .: | | | |

Now it's time to activate it by enabling it for a whole site, or adding a virtual directory for it.

5.3 Whole Site Configuration

If the Comtarsia WebGateway 2012 module is enabled for a whole site, it will handle all requests to this site.

Start the Internet Information Services (IIS) Manager and navigate to a configured Site. (e.g. Default Web Site) Open the "Handler Mappings" page.



Right-click into the view and select "Add Script Map...".

Comtarsia Web Gateway 2012

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| 8] | Interne | et Informa | tion Services (IIS) | Manager | | _ D X | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------|------------|----------------|-----------------------------------|--|
| WIN-M7IGJNG9BKE → Sites → Default Web Site → WIN-M7IGJNG9BKE → WIN-M7IGJNG9BKE → WIN-M7IGJNG9 | | | | | | | |
| File View Help | | | | | | | |
| Connections | | Manni | 200 | | Actions | | |
| 🔍 - 🔡 🖄 😣 | | Mappi | ngs | | Add N | Managed Handler | |
| Start Page WIN-M7IGJNG9BKE (WIN-M7 | Use this feature to spe | ecify the res | ources, such as DLLs a | nd managed | Add S | Script Map Wildcard Script Map | |
| Application Pools | Code, that handle res | ponses for s | pecific request types. | | Add N Add N | Module Mapping | |
| Sites | Group by: State | * | Dath | State | Edit F | eature Permissions | |
| p or beladit web site | Disabled | | Path | State | Rever | t To Parent | |
| | ISAPI-dll | | *.dll | Disabled | View | Ordered List | |
| | Enabled | | | | 🕜 Help | | |
| | OPTIONSVerbHandl | er | * | Enabled | Onlin | e Help | |
| | TRACEVerbHandler | | * | Enabled | | | |
| | StaticFile | | * | Enabled | | | |
| | | Add Mana | iged Handler | | | | |
| | | Add Script | t Map | | | | |
| | | Add Wildo | ard Script Map | | | | |
| | | Add Mode | ule Mapping | | | | |
| | | Edit Featu | re Permissions | | | | |
| | | Revert To | Parent | | | | |
| | 4 | View Orde | red List | > | | | |
| | | Help | | | | | |
| < III > | Features View | Online He | lp | | | | |
| Configuration: 'localhost' applie | cationHost.config , <loo< td=""><td>ation path=</td><td>"Default Web Site"></td><td></td><td></td><td>€<u>∃</u>.:</td></loo<> | ation path= | "Default Web Site"> | | | € <u>∃</u> .: | |

Fill in the following Values: Request path: * Executable: enter the path to the "ComtWebGateway.dll". Name: Comtarsia WebGateway 2012 (/)

Open the "Request Restrictions" dialog.

| | Add Script N | Лар | ? X |
|--------------------------|--------------------|----------------------|--------|
| Request path: | | | |
| * | | | |
| Example: *.bas, wsvc.axd | | | |
| Executable: | | | |
| C:\Program Files\Comtars | ia\SignOn Solution | s 2012\isapi\bin\Com | tW |
| | | | |
| Name: | | | |
| Comtarsia WebGateway 2 | 012 (/) | | |
| Request Restrictions | 3 | | |
| | | ОК | Cancel |

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| Incheck the "Invoke handler only if request is mapped to:" checkbox Request Restrictions |
|---------------------------------------------------------------------------------------------|
| Mapping Verbs Access |
| Invoke handler only if request is mapped to: |
| File |
| O Folder |
| O File or folder |
| |
| |
| |
| |
| |
| |
| |
| OK Cancel |
| |

Submit both dialogs with "OK".

| Accept th | e following dialog with "Yes". Add Script Map | x |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 0 | Do you want to allow this ISAPI extension? Click "Yes" to add the extension with an "Allowed" entry to the ISAPI and CGI Restrictions list or to update an existing extension entry to "Allowed" in the ISAPI and CGI Restrictions list. | |
| | Yes No Cancel | |

The Comtarsia WebGateway 2012 module is now active for the whole site.



5.4 Virtual Directory Configuration

Alternatively, a virtual directory can be configured to handle Comtarsia WebGateway 2012 requests. In this case, the Comtarsia WebGateway 2012 module is active only for the created directory. Multiple virtual directories can be created, however, the Comtarsia WebGateway 2012 won't be able to handle any requests outside of these directories.

Page 30/35

Right click on an IIS site and select "Add Virtual Directory..."



| 8 | | Int | ernet Info | rmation Se | rvices (IIS) I | Manager | | | _ □ | x |
|----------------------------------------------------------------|----------------|---------------|------------|------------|----------------|-----------|----------|-------|----------------------------|---------------|
| 🛞 💊 🕨 WIN-M7IGJNG9BKE 🔸 Sites 🔸 Default Web Site 🔸 🔯 🔯 💌 🏠 🔞 🔹 | | | | | | | | | | |
| File View H | File View Help | | | | | | | | | |
| Connections Default Web Site Llama | | | | | | | Act | tions | | |
| 😪 - 🔚 🖄 😽 | 8 | | | SILE HUI | ne | | | è | Explore | |
| Start Page | | Filter: | | - 🐨 Go - 🕻 | Show All | Group by: | = | | Edit Permissions | |
| Application | n Pools | IIS | | | | ~ | ^ | | Edit Site | |
| ⊿ · 🙆 Sites | t Web Site | | 9 | | | | | F | Bindings Basic Settings | |
| | Explore | | mpression | Default | Directory | | | | View Applications | |
| | Edit Permissi | ions | | Document | Browsing | | | | View Virtual Directories | |
| 1 | Add Applicat | tion | | | | | | Ma | nage Website | ۲ |
| 2 | Add Virtual [| Directory | Handler | НТТР | ISAPI Filters | | _ | 2 | Restart | |
| | Edit Bindings | s | lappings | Respon | , | | = | | Start | |
| | Manage Web | bsite 🕨 | - 1 | | | | | - | Stop | |
| 4 2 | Refresh | | ME Types | Modules | Output | | | • | Browse *:80 (http) | |
| × | Remove | | | | Caching | | | | Advanced Settings | |
| | Rename | | A | | | | | | Configure | |
| PA I | Switch to Co | intent View | L Settings | | | | - 1 | | Limits | |
| <u>•=</u> | 511111111111 | | | | | | | ? | Help | |
| | | Management | | | | ^ | <u> </u> | | Online Help | |
| | | (mm. *) | | | | | · | | | |
| < 111 | > | Features View | Conten | t View | | | | | | |
| Ready | | | | | | | | | | • <u>1</u> .: |

Enter the desired alias (name of the virtual directory) and set the physical path to the path of the Comtarsia WebGateway 2012 ISAPI-bin directory. Accept with "OK".

| ÷ | Add Virtual Directory ? X |
|-----------------------------|-------------------------------------------|
| | |
| Site name: Path: | Default Web Site / |
| Alias: | |
| WebGateway | |
| Example: ima | ges |
| Physical path | : |
| rogram Files\ | Comtarsia\SignOn Solutions 2012\isapi\bin |
| Pass-through Connect as. | authentication Test Settings |
| | OK Cancel |

Select the created virtual directory and open the "Handler Mappings" page.

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| e j | Internet Information Services (IIS) Manager | _ D X |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 🕞 💽 🛃 🕨 WIN-M7 | IGJNG9BKE → Sites → Default Web Site → WebGateway → | 🖸 🛛 🟠 🔞 🕶 |
| File View Help | | |
| Connections | WebGateway Home Filter: IS Authentic Compression Default Document Browsing Image: Content View WebGateway Home IS IS IS IS IS IS IS IS Image: Content View Image: Content View Image: Content View | Actions Open Feature Explore Edit Permissions Basic Settings Manage Virtual Directory Browse Virtual Directory Browse *:80 (http) Edit Virtual Directory Advanced Settings Phelp Online Help |
| Ready | | • 1 .: |

Right click the list and select "Add Script Map...".

| 👣 Internet Information Services (IIS) Manager 📃 🗖 🗙 | | | | | | | | | |
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| 🕞 🔂 🛃 🕨 WIN-M7 | 😂 🛛 🟠 🔞 - | | | | | | | | |
| File View Help | | | | | | | | | |
| Connections Connections Start Page WIN-M7IGJNG9BKE (WIN Connection Pools Connection Pools Connection Pools Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connections Connecti | Handler Mappin Use this feature to specify the resc code, that handle responses for sp Group by: State | NGS ources, such as DLL secific request type | .s and managed es. | Actions Add Managed Handler Add Script Map Add Wildcard Script Map Add Module Mapping | | | | | |
| Default Web Site | Name | Path | State P. | Edit Feature Permissions Revert To Parent | | | | | |
| P P WebGateway | ISAPI-dll | *.dll | Disabled Fi | View Ordered List | | | | | |
| | Enabled OPTIONSVerbHandler TRACEVerbHandler | * | Enabled U Enabled U | Help Online Help | | | | | |
| | StaticFile | * | Enabled Fi | | | | | | |
| | Add Managed H | landler | | | | | | | |
| | Add Script Map | Add Script Map | | | | | | | |
| | Add Wildcard S | cript Map | | | | | | | |
| | Add Module Ma | apping | | | | | | | |
| | Edit Feature Per | missions | | | | | | | |
| | View Ordered Li | st | | | | | | | |
| | Help | | | | | | | | |
| < III > | Features Online Help | | | | | | | | |
| Configuration: 'Default Web Site/WebGateway web.comrg | | | | | | | | | |

Fill in the following Values: Request path: * Executable: enter the path to the "ComtWebGateway.dll". Name: Comtarsia WebGateway 2012 (/)

Open the "Request Restrictions" dialog.

| Add Script Map | | | | | | |
|------------------------------------------------------------------|--|--|--|--|--|--|
| Request path: | | | | | | |
| * | | | | | | |
| Example: *.bas, wsvc.axd | | | | | | |
| Executable: | | | | | | |
| les\Comtarsia\SignOn Solutions 2012\isapi\bin\ComtWebGateway.dll | | | | | | |
| | | | | | | |
| Name: | | | | | | |
| Comtarsia WebGateway (*/*) | | | | | | |
| Request Restrictions | | | | | | |
| OK Cancel | | | | | | |

Uncheck the "Invoke handler only if request is mapped to:" checkbox. Request Restrictions

| Mapping Verbs Access | | | | | |
|----------------------------------------------|--|--|--|--|--|
| Invoke handler only if request is mapped to: | | | | | |
| • File | | | | | |
| ○ Folder | | | | | |
| ○ File or folder | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| OK Cancel | | | | | |

Submit both dialogs with "OK".

Accept the following dialog with "Yes".



The Comtarsia WebGateway 2012 module is now active for this virtual directory.

| 8 | Internet Informatio | | | | | | | | |
|---------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| 🕞 🕞 🕨 WIN-M7IGJNG9BKE 🔸 Sites 🔺 Default Web Site 🔸 WebGateway 🔸 🦉 😨 🛛 🚱 🔹 | | | | | | | | | |
| File View Help | | | | | | | | | |
| Connections | Handler Mapping | JS ces, such a: ific request Path *.dll * * * | s DLLs and manager types. State Disabled Enabled Enabled Enabled | d Fi U U Fi | Actions Add Managed Handler Add Script Map Add Wildcard Script Map Add Module Mapping Edit Feature Permissions Revert To Parent View Ordered List Philome Help Online Help | | | | |
| Configuration: 'Default Web Site/WebGateway' web.config | | | | | | | | | |



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