

```
/*
** RELEASE STATEMENT(s):
**
**             UNLIMITED RIGHTS
** The Government has the right to use, modify, reproduce, release, perform,
** display, or disclose this application programmable interface in whole or in
** part, in any manner and for any purpose whatsoever, and to have or
** authorize others to do so.
**
** Distribution Statement A - Approved for public release; distribution is
** unlimited (27 August 2015).
*/

/*
** JTNC Standard:
** Software Communications Architecture
** Appendix C: Core Framework Interface Description Language (IDL)
** Version: 4.1, 20 August 2015
*/

//Source file: CFApplicationFactory.idl

#ifndef __CFAPPLICATIONFACTORY_DEFINED
#define __CFAPPLICATIONFACTORY_DEFINED

#include "CFPlatformTypes.idl"
#include "CFSpecializedInfo.idl"

module CF {

    /* This interface class provides an interface to request
    the creation of a specific type of application in the domain.
    The Software Profile determines the type of application that is created
    by the ApplicationFactory. */
    interface ApplicationFactory {

        /* This exception is raised when the parameter
        DeviceAssignmentSequence contains one or more invalid
        application component-to-device assignment(s). */
        exception CreateApplicationRequestError {
            CF::DeviceAssignmentSequence invalidAssignments;
        };

        /* This exception is raised when a create request is valid but
        the application is unsuccessfully instantiated due to internal
        processing errors. The message provides additional information
        describing the reason for the error. */
        exception CreateApplicationError {
            CF::ErrorNumberType errorNumber;
            string msg;
        };

        /* This exception is raised when the input initConfiguration
        parameter is invalid. */
        exception InvalidInitConfiguration {
            CF::Properties invalidProperties;
        };

        /* This attribute contains the name of the type of application
        that can be instantiated by the ApplicationFactory. */
        readonly attribute string name;

        /* This structure associates a component with a process collocation
        and or processor core. */
        struct ExecutionAffinityType
        {
            string componentId;
        };
    };
};

#endif
```

```
    string processCollocation;
CF::ULongSeq coreAffinities;
};

/* The sequence provides an unbounded sequence of ExecutionAffinityType
   elements. */
typedef sequence <ExecutionAffinityType> ExecutionAffinitySequence;

/* This operation is used to create an application within
   the system domain. */
CF::ComponentType create (
    in string name,
    in CF::Properties initConfiguration,
    in CF::DeviceAssignmentSequence deviceAssignments,
    in CF::Properties deploymentDependencies,
    in CF::ApplicationFactory::ExecutionAffinitySequence
    executionAffinityAssignments
)
raises (CF::ApplicationFactory::CreateApplicationError,
        CF::ApplicationFactory::CreateApplicationRequestError,
        CF::ApplicationFactory::InvalidInitConfiguration);

};

#endif
```