Glossary

application-level name service

Application-level name services are incorporated in applications offering services such as files, mail, and printing. Application-level name services are bound below enterprise-level name services. The enterprise-level name services provide contexts in which contexts of application-level name services can be bound.

atomic name

An indivisible component of a name as defined by the naming convention.

attribute

Each named object is associated with a set of zero or more attributes. Each attribute in the set has a unique attribute identifier, an attribute syntax, and a set of zero or more distinct attribute values.

binding

The association of an atomic name with an object reference. For simplicity, an object reference and the object it refers to are used interchangeably in this guide.

BNF

Backus-Naur Form.

composite name

A name that spans multiple naming systems. It consists of an ordered list of zero or more components. Each component is a name from the namespace of a single naming system. Composite name resolution is the process of resolving a name that spans multiple naming systems.

compound name

A sequence of atomic names composed according to the naming convention of a naming system.

context

An object whose state is a set of bindings with distinct atomic names. Every context has an associated naming convention. A context provides a lookup (resolution) operation, which returns the reference, and may provide operations such as binding names, unbinding names, and listing bound names.

DNS

Domain Name System. A system that provides the naming policy and mechanisms for mapping domain and machine names to addresses on the Internet.

enterprise-level name service

A name service that names objects within an enterprise. The types of objects named are organizational units, sites, users, hosts, and files. Enterprise-level name services are bound below global name services. Global name services provide contexts in which the root contexts of enterprise-level naming systems can be bound.

enterprise root

The root context of an enterprise. A context for naming objects found at the root of the enterprise namespace.

federated naming service

The service offered by a federated naming system.

federated naming system

An aggregation of autonomous naming systems that cooperate to support name resolution of composite names through a standard interface. Each member of a federation has autonomy in its choice of operations other than name resolution.

federated namespace

The set of all possible names generated according to the policies that govern the relationships among member naming systems and their respective namespaces.

generic context

A context for binding names used in applications.

global context

A context for naming objects that have global names (currently, DNS and X.500 are the only global naming systems specified by XFN).

global name service

A name service that has worldwide scope, such as Internet DNS and X.500. The types of entities named at this global level are typically countries, states, provinces, cities, companies, universities, institutions, and government departments and ministries. Each of these entities can be an enterprise.

host context

A context for naming objects related to a computer.

implicit naming system pointer

An unnamed reference that points to a context in another naming system.

initial context

Every XFN name is interpreted relative to some context, and every XFN naming operation is performed on a context object. The XFN interface provides a function that allows the client to obtain an initial context object that provides a starting point for resolution of composite names.

junction

A name in one namespace bound to a context in the next naming system.

naming convention

Every name is generated by a set of syntactic rules called a naming convention.

namespace

The set of all names in a naming system.

namespace identifier

A special atomic name used to refer to the root of a namespace.

name service

The service offered by a naming system. It is accessed through its interface.

naming system

A connected set of contexts of the same type (having the same naming convention) and providing the same set of operations with identical semantics. In the UNIX operating system, for example, the set of directories in a given file system (and the naming operations on directories) constitutes a naming system.

next naming system pointer (NNSP)

Reference to a context in which composite names from subordinate naming systems are resolved.

organizational units

An enterprise is organized into organizational units such as centers, laboratories, departments, divisions, and so on. An organizational unit is a subunit of an enterprise.

organizational unit context

A context for naming objects related to an organizational unit within an enterprise.

parent context

A context in which this context and its siblings are bound.

reference

The thing bound to a name. It contains addresses identifying the communication endpoints of the object.

root context

A context for naming the objects found in the root of the namespace.

service context

A context for naming objects that provide services.

site context

A context for naming objects related to a physical site.

strong separation

The case where the XFN context treats the XFN component separator as the naming system boundary.

subcontext

A context bound within another context.

user context

A context for naming objects related to a human user.

weak separation

The case where the XFN context does not treat the XFN component separator as the naming system boundary.

XFN link

A special form of reference that has a composite name as an address. Like any other type of reference, an XFN link is bound to an atomic name in a context.

X.500

A global-level directory service defined by an Open Systems Interconnection (OSI) standard.