



# EnginFrame Infrastructure Integration Kits

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## 0. EnginFrame Grid Portal Overview

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EnginFrame is the leading Grid Portal that enables user-friendly and application-oriented job submission, control and monitoring. Leading corporate customers and research centers today leverage EnginFrame to interface their designers, partners and customers with the Grid.

EnginFrame includes sophisticated data management for all stages of job lifetime and is integrated with all relevant Grid workload management systems, by means of plug-in modules that extend its functionality leveraging the underlying infrastructure.

### Integration Plug-Ins

The following list of plug-ins does not include the integration kits with selected applications. To search for application integration, or get an up-to-date list of the available plug-ins, please visit our web site at:

<http://www.enginframe.com/integrations/>



## 1. Authentication Plug-ins

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Authentication plugins check the username and password against the defined type of authentication system like Active Directory or LDAP. EnginFrame also supports using multiple authentication systems at the same time.

<b><u>Name</u></b>	<b><u>Short Description</u></b>	<b><u>Functionality List</u></b>	<b><u>Availability</u></b>
activedirectory	Windows Active Directory authentication	authentication, user mapping	Production, bundled
http	HTTP Basic authentication	authentication, user mapping	Production, bundled
Ldap	LDAP Authentication	authentication, user mapping	Production, bundled
myproxy	My Proxy Authentication	authentication, user mapping	Production, bundled
Krb5	Kerberos Authentication	authentication, user mapping	Production, bundled
afs	Kerberos4 / (AFS) integration	authentication, token management, user mapping	Available separately
pam	PAM authentication	authentication, user mapping	Available separately



## 2. Grid Middleware Plug-ins

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Grid middleware plugins integrate different Grid Middleware systems to submit jobs, control the running jobs and monitor the current status of jobs in different level of details. The plugins also support display of host and cluster information as reported by the middleware.

<b><u>Name</u></b>	<b><u>Short Description</u></b>	<b><u>Functionality List</u></b>	<b><u>Availability</u></b>
lsf	LSF integration	job submission, monitoring, control and host load display	Production, bundled
xlsf	External LSF job grabber	extend data monitoring for jobs submitted outside Engin Frame	Production, available separately
rlsf	Remote LSF gateway	implement LSF control over ssh (for utility / on-demand computing)	Production, available separately
lsf2xml	Scalability-oriented LSF integration	LSF info extraction using native API, scalable visualization	Available separately
sgc	Sun Grid Engine job manager integration	job submission, monitoring, control and host load display	Production, bundled
pbs	PBS/Pro job manager integration	job submission, monitoring, control and host load display	Production, available separately
multicluster	Advanced host monitoring for LSF Multi Cluster	AJAX based cluster load	Production, bundled in 4.2
genius	GENIUS portal to EGEE middleware	full services reflecting most middleware functions	Production, separate bundle
globus	GTK integration	GSI authentication, basic job submission and tracking, output retrieval	Available separately
gridmp	UD Grid MP integration	job submission, monitoring and control	Available separately



### 3. Data / Information Management Plug-ins

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EnginFrame supports a native integration of data management based on a "spooler"-concept. In addition to that several data / information management plug-ins support among others Remote Spooler Management (monitoring data in the scratch space, tracking data in the utility data center, ...), AFS, SRB and DataGate.

<b>Name</b>	<b>Short Description</b>	<b>Functionality List</b>	<b>Availability</b>
afs	Karberos / Andrew File System (AFS) authentication	authentication, user mapping	Available separately
rspooler	Remote spooler management	display virtual spoolers, image of data remotely accessible via ssh/rcp/lrun	Production, bundled in 4.2
srb	Storage Resource Broker <sup>2</sup> integration	navigation, data staging, metadata management	Available separately
documentshare	Document sharing repository	manage centralized directory tree and files, different user roles	Production, available separately
datagate	Project data exchange	manage project configuration, roles, ACL-driven file exchange, large file support, admin control and logging	Production, available separately
cms	Twiki integration	data export from Twiki to EnginFrame, ACL integration, collections management	Production, available separately



## 4. GUI virtualization Plug-ins

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GUI virtualization plug-ins support the transparent integration of interactive applications so that they are accessible with one mouse click or can be invoked automatically from within a service.

<b><u>Name</u></b>	<b><u>Short Description</u></b>	<b><u>Functionality List</u></b>	<b><u>Availability</u></b>
metaframe	Citrix integration	graphical apps integration via native client	Production, available separately
vnc	VNC integration	administration, display settings, graphical apps integration via applet & native client	Production, available separately
nx	Nomachine integration	graphical apps integration via native client	Production, available separately

## 5. WebServices integration with programming languages

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EnginFrame provides a WebServices (WS)-API to access all the functionality of EnginFrame from within other applications leveraging WS and to create command line interfaces to EnginFrame.

<b><u>Name</u></b>	<b><u>Short Description</u></b>	<b><u>Functionality List</u></b>	<b><u>Availability</u></b>
java-cri	Java-client reference implementation	Authentication, service discovery, submission, control, data management	Production, available separately
.net-cri	.NET-client reference implementation	Authentication, service discovery, submission, control, data management	Production, available separately
python-lib	Python WS-client library	Authentication, service discovery, submission, control	Available separately
perl-lib	Perl WS-client library	Authentication, service discovery, submission, control	Available separately



## 6. Other Plug-ins

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Miscellaneous integrations available for EnginFrame include RSS feed for monitoring Jobs, Hosts, ... in e.g. the RSS reader and a Flexlm integration module representing license information graphically with drill-down options.

<b><u>Name</u></b>	<b><u>Short Description</u></b>	<b><u>Functionality List</u></b>	<b><u>Availability</u></b>
rss	RSS standard feeds provisioning	Event notification	Production, bundled
lmstat	FLEXLM integration	Visual display and drilling of lmstat output	Production, available separately