STEVEN J. RIZZI (*pro hac vice* forthcoming)
srizzi@kslaw.com
RAMY HANNA (*pro hac vice* forthcoming)
rhanna@kslaw.com
KING & SPALDING LLP
1185 Avenue of the Americas, 35th Floor
New York, NY 10036
Telephone: (212) 556-2100
Facsimile: (212) 556-2222

RYAN A. SCHMID (*pro hac vice* forthcoming)
rschmid@kslaw.com
KING & SPALDING LLP
1700 Pennsylvania Avenue, N.W.
Washington, D.C. 20006
Telephone: (202) 737-0500
Facsimile: (202) 626-3737

RAMON A. MIYAR (CA SBN 284990)
rmiyar@kslaw.com
KING & SPALDING LLP
50 California Street, Suite 3300
San Francisco, CA 94111
Telephone: (415) 318-1200
Facsimile: (415) 318-1300

Attorneys for Plaintiff
EXPRESS MOBILE, INC.

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

EXPRESS MOBILE, INC. Plaintiff, v. SAP SE, SAP America, Inc., and SAP Labs, LLC Defendants.	Civil Action No. 3:20-cv-08492 **PLAINTIFF EXPRESS MOBILE, INC.'S COMPLAINT** *Jury Trial Demanded*

Express Mobile, Inc., Exhibit 2011
Page 2011 - 1
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

COMPLAINT

Plaintiff Express Mobile, Inc. ("Express Mobile" or "Plaintiff"), by and through its undersigned counsel, brings this action for patent infringement against Defendants SAP Americas, Inc., SAP SE, and SAP Labs, LLC (collectively, "SAP" or "Defendants") and alleges as follows:

NATURE OF THE ACTION

1. This is a civil action arising under 35 U.S.C. § 271 for SAP's infringement of Express Mobile's United States Patent Nos. 6,546,397 ("the '397 patent"), 7,594,168 ("the '168 patent"), 9,063,755 ("the '755 patent"), 9,471,287 ("the '287 patent"), and 9,928,044 ("the '044 patent") (collectively the "Patents-In-Suit").

THE PARTIES

2. Plaintiff Express Mobile, Inc. is a Delaware corporation with a place of business at 38 Washington Street, Novato, CA 94947.

3. Upon information and belief, Defendant SAP SE is a European company with its principal place of business at Dietmar-Hopp-Allee 16, Walldorf, Germany, 69190. SAP SE converted from a German "AG" corporation to an "SE" European company in 2014.

4. Upon information and belief, Defendant SAP America, Inc. ("SAP America"), a wholly owned subsidiary of SAP SE, is a Delaware corporation. Its principal place of business is located at 3999 West Chester Pike, Newtown Square, PA 19073, and it also has a place of business located in this Judicial District, at 1999 Harrison Street, Suite 675, Oakland, CA 94612. On information and belief, SAP America is responsible for sales, marketing, distribution, technical support, and customer service related to its infringing products, including the SAP Fiori User Experience (UX) platform and other SAP products, occurring in the United States, including throughout this District.

5. Upon information and belief, Defendant SAP Labs, LLC ("SAP Labs"), a wholly owned subsidiary of SAP America, is a Delaware limited liability company. SAP Labs has places of business in Palo Alto and San Francisco, California, including its Co-Innovation Lab ("COIL") facility located at 3410 Hillview Avenue, Palo Alto, CA 94304. On information and belief, SAP Labs conducts research, development, and engineering activities related to its infringing products,

Express Mobile, Inc., Exhibit 2011
Page 2011 - 2
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

including the SAP Fiori User Experience (UX) platform and other SAP products, occurring in the United States, including throughout this District.

JURISDICTION AND VENUE

6. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*, including specifically 35 U.S.C. § 271.

7. This Court has subject matter jurisdiction over the matters pleaded herein under 28 U.S.C. §§ 1331 and 1338(a).

8. This Court has personal jurisdiction over Defendants because, on information and belief, Defendants have (1) purposefully availed themselves of the rights and benefits of the laws of this State and this Judicial District, (2) transacted, conducted, and/or solicited business and engaged in a persistent course of conduct in the State of California (and in this District) directly or through intermediaries, (3) derived substantial revenue from the sales and/or use of their infringing products and services, such as the SAP Fiori User Experience (UX) platform, (4) purposefully directed activities (directly and/or through intermediaries), such as distributing, offering for sale, selling, marketing, and/or advertising their products and services, at residents of the State of California (and residents in this District), (5) delivered their products and services into the stream of commerce with the expectation that such products and services will be used and/or purchased by consumers in the State of California (and in this District), and (6) committed, contributed to, and/or induced acts of patent infringement in the State of California (and in this District).

9. In particular, Defendants have committed and continue to commit acts of infringement in violation of 35 U.S.C. § 271, and have made, used, marketed, distributed, offered for sale, sold, and/or imported infringing products and services in/into the State of California, including in this District, and engaged in infringing conduct within and directed at or from this District. For example, Defendants have purposefully and voluntarily placed their infringing products such as the SAP Fiori User Experience (UX) platform into the stream of commerce with the expectation that such products will be used in this District. Defendants' infringing products have been and continue to be distributed to and used in this District. Defendants' acts cause and have caused injury to Express Mobile, including within this District.

10. This Court also has personal jurisdiction over Defendants SAP America and SAP Labs because they are registered to do business in California and have a regular and established place of business in the Northern District of California.

11. Venue is proper in this Judicial District under 28 U.S.C. §§ 1391 and 1400(b).

12. Venue is proper as to SAP SE under 28 U.S.C. § 1391(c)(3) because SAP SE is not a resident of the United States and therefore may be sued in any judicial district.

13. Venue is proper as to SAP America in this Judicial District under 28 U.S.C. §§ 1391 and 1400(b) based on the information and belief that (1) SAP America has committed, contributed to, and/or induced acts of infringement, and/or has advertised, marketed, sold, and/or offered to sell products and services, including infringing products and services, in this Judicial District, as discussed above in ¶¶ 4 and 8-10, which are incorporated by reference herein, and (2) SAP America maintains at least one regular and established place of business in this Judicial District via its office located at 101 Mission St #800, San Francisco, California, 94105 and/or its office located at 1999 Harrison Street, Suite 675, Oakland, CA 94612.

14. Venue is proper as to SAP Labs in this Judicial District under 28 U.S.C. §§ 1391 and 1400(b) based on the information and belief that (1) SAP Labs has committed, contributed to, and/or induced acts of infringement, and/or has advertised, marketed, sold, and/or offered to sell products and services, including infringing products and services, in this Judicial District, as discussed above in ¶¶ 5 and 8-10, which are incorporated by reference herein, and (2) SAP Labs maintains at least one regular and established place of business in this Judicial District via its office located at 3410 Hillview Avenue, Palo Alto, CA 94304.

THE PATENTS-IN-SUIT

15. On April 8, 2003, United States Patent No 6,546,397 entitled "Browser Based Web Site Generation Tool and Run Time Engine," was duly and legally issued to Steven H. Rempell after full and fair examination. Plaintiff is the lawful owner of all right, title, and interest in and to the '397 patent, including the right to recover for infringement thereof. A copy of the '397 patent is attached as Exhibit A.

16. The claimed inventions of the '397 patent solve technical problems related to the

Express Mobile, Inc., Exhibit 2011
Page 2011 - 4
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

creation and generation of websites. For example, the inventions enable the creation of websites through browser-based visual editing tools, for example, selectable settings that describe website elements, with one or more settings corresponding to commands. These features are implemented utilizing computer technology, including a virtual machine.

17. The claims of the '397 patent do not merely describe performing some known business practice on the Internet. Instead, the claims of the '397 patent recite inventive concepts that are rooted in computerized website creation technology and overcome problems specific to this realm.

18. The claimed inventions of the '397 patent do not merely apply routine or conventional technologies for website creation and generation. Instead, the claims describe a browser-based website creation system and method in which information representing user-selected settings for a website are stored in a database, and the stored information is retrieved to generate the website.

19. The claims in the '397 patent do not preempt all ways of creating and generating websites or web pages, all uses of website authoring tools, nor any other well-known prior art technology.

20. Each claim of the '397 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent- ineligible concept.

21. On September 22, 2009, United States Patent No 7,594,168 entitled "Browser Based Web Site Generation Tool and Run Time Engine," was duly and legally issued to Steven H. Rempell after full and fair examination. Plaintiff is the lawful owner of all right, title, and interest in and to the '168 patent, including the right to recover for infringement thereof. A copy of the '168 patent is attached as Exhibit B.

22. The claimed inventions of the '168 patent solve technical problems related to the creation and generation of websites. For example, the inventions utilize browser-based build tools and a user interface to enable the creation of websites. These inventions greatly improve the productivity of the designer utilizing an innovative implementation for styles. These features are implemented utilizing computer technology.

23. The claimed inventions of the '168 patent do not perform a known business practice on the Internet. Instead, the claims of the '168 patent recite inventive concepts rooted in computerized website creation technology, and overcome problems specifically arising in this realm.

24. The claimed inventions of the '168 patent do not merely apply routine or conventional technologies for website creation and generation. Instead, the inventions describe a browser-based website creation system including a server comprising a build engine configured to create and apply styles to, for example, a website with web pages comprised of objects.

25. The claims in the '168 patent do not preempt all ways of creating and generating websites or web pages, all uses of website authoring tools, nor any other well-known or prior art technology.

26. Each claim of the '168 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent-ineligible concept.

27. In Case No. 3:18-CV-04679-RS, an infringement action filed by Plaintiff in the Northern District of California, the defendant in that action, Code and Theory LLC, brought a Motion to Dismiss Plaintiff's Complaint, asserting that the '397 and '168 patents do not claim patent-eligible subject matter under 35 U.S.C. § 101 as a matter of law. (Case No. 3:18-CV-04679-RS D.I. 35.) Subsequent briefing included Plaintiff Express Mobile, Inc.'s Opposition to Defendant Code and Theory LLC's Motion to Dismiss Plaintiff's Complaint (Case No. 3:18-CV-04679-RS D.I. 40), and Motion to Dismiss Plaintiff's Complaint [sic] (Case No. 3:18-CV-04679-RS D.I. 41). Each of those filings is incorporated by reference into this Complaint.

28. In Case No. 3:18-CV-04688-RS, an infringement action filed by Plaintiff in the Northern District of California, the defendant in that action, Pantheon Systems, Inc., brought a Motion to Dismiss Counts I and II of Plaintiff's First Amended Complaint asserting that the '397 and '168 patents were directed to the abstract idea of creating and displaying webpages based upon information from a user with no further inventive concept, and purportedly ineligible for patenting under 35 U.S.C. § 101. (Case No. 3:18-CV-04688-RS D.I. 26.) Subsequent briefing included Plaintiff's Answering Brief in Opposition of Defendants' Motion to Dismiss (Case No. 3:18-CV-

Express Mobile, Inc., Exhibit 2011
Page 2011 - 6
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

04688-RS D.I. 32) and Reply in Support of Defendants' Motion to Dismiss Counts I and II of Plaintiff's First Amended Complaint (Case No. 3:18-CV-04688-RS D.I. 34). Each of those filings is incorporated by reference into this Complaint.

29. After a motion hearing and a consideration of the respective pleadings, the Hon. Richard Seeborg denied both motions with respect to both patents in a joint order, because "the patents purport to describe a novel technological approach to creating websites on the internet." (Case No. 3:18-CV-04679-RS D.I. 45; Case No. 3:18-CV-04688-RS D.I. 40; attached as Exhibit F.) In denying the motions, Judge Seeborg made several findings:

- "The patents here are directed at a purportedly revolutionary technological solution to a technological problem—how to create webpages for the internet in a manner that permits 'what you see is what you get' editing, and a number of other alleged improvements over the then-existing methodologies." *Id.* at 5.
- The claims of the '397 and '168 patents are "directed to a specific improvement to the way computers operate," and "it simply cannot be said on the present record that the claims are drawn so broadly as to be divorced from the potentially patent-eligible purported technological improvements described in the specification." *Id.* at 6.

30. In C.A. 2:17-00128, an infringement action filed by Plaintiff in the Eastern District of Texas, the defendant in that action, KTree Computer Solutions, brought a Motion for Judgement on the Pleadings, asserting that the '397 and '168 patents were invalid as claiming abstract subject matter under 35 U.S.C. § 101. (C.A. 2:17-00128 D.I. 9.) Subsequent briefing included Plaintiff's Response and related Declarations and Exhibits (C.A. 2:17-00128 D.I. 17, 22-24), KTree's Reply (C.A. 2:17-00128 D.I. 25), and Plaintiff's Sur-Reply and related Declarations and Exhibits (C.A. 2:17-00128 D.I. 26-27). Each of those filings is incorporated by reference into this Complaint.

31. After consideration of the respective pleadings, Magistrate Judge Payne recommended denial of KTree's motion, without prejudice, holding that "the claims appear to address a problem particular to the internet: dynamically generating websites and displaying web pages based on stored user-selected settings" and further stating "the asserted claims do not bear all of the hallmarks of claims that have been invalidated on the pleadings by other courts in the

Express Mobile, Inc., Exhibit 2011
Page 2011 - 7
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

past. For example, the claims are not merely do-it-on-a-computer claims." (C.A. 2:17-00128 D.I. 29, attached as Exhibit G.) No objection was filed to the Magistrate Judge's report and recommendation and the decision therefore became final.

32. In Case Nos. 1:18-CV-01173-RGA and 1:18-CV-01175-RGA, infringement actions filed by Plaintiff in the District of Delaware, the respective defendants in those actions, Dreamhost LLC and Hostway Services, Inc., brought Motions to Dismiss claims of the '397 and '168 patents on the basis of invalidity under 35 U.S.C. § 101. (Case No. 1:18-CV-01173-RGA D.I. 14; Case No. 1:18-CV-01175-RGA D.I. 14.) Subsequent briefing included Plaintiff's Responses and related Declarations and Exhibits (Case No. 1:18-CV-01173-RGA D.I. 18-21; Case No. 1:18-CV-01175-RGA D.I. 17-19), and defendants' Replies (Case No. 1:18-CV-01173-RGA D.I. 24; Case No. 1:18-CV-01175-RGA D.I. 23). Each of these filings is incorporated by reference.

33. After consideration of the respective pleadings, Judge Andrews denied both motions in a joint order, pointing to factual allegations of inventiveness identified by the Plaintiff, and an expert declaration explaining inventiveness of the claims, noting that such factual issues preclude a finding of invalidity on a motion to dismiss. (Case No. 1:18-CV-01173-RGA D.I. 43; Case No. 1:18-CV-01175-RGA D.I. 42; attached as Exhibit H.)

34. On June 23, 2015, United States Patent No 9,063,755 entitled "Systems and methods for presenting information on mobile devices," was duly and legally issued to Steven H. Rempell, David Chrobak and Ken Brown after full and fair examination. Plaintiff is the lawful owner of all right, title, and interest in and to the '755 patent, including the right to recover for infringement thereof. A copy of the '755 patent is attached as Exhibit C.

35. The inventions of the '755 patent utilize inventive concepts to solve technical problems, such as those associated with methods and systems for displaying dynamic content on displays of devices, providing more efficient ways of generating code for more uniformly displaying dynamic content across different kinds of devices. For example, the inventions of the '755 patent allow a data-efficient and flexible association between a symbolic name and a UI object (e.g., a UI object for a widget), corresponding to a web component of a web service, that is

Express Mobile, Inc., Exhibit 2011
Page 2011 - 8
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

defined for presentation on a display of a device. A device-independent application including the symbolic name is produced and provided to the device, together with a device-platform-dependent player.

36. The claimed inventions of the '755 patent allow the UI object to be efficiently displayed across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems, and applications, including also for example both native and browser-based applications). In turn, a user can enter an input value to the UI object and obtain an output value based on a web service associated with the UI object, the input value and output value also being communicated through symbolic names to provide an additional level of efficiency. These inventive features are implemented utilizing computer technology and solve technical problems in the prior art.

37. The claims of the '755 patent do not recite merely the performance of a known business practice on the Internet. Instead, the claims of the '755 patent recite inventive concepts concerning the computerized, data-efficient generation of content (e.g., a UI object for providing dynamic content) on displays for different types of devices, such as PC, tablet, or mobile devices, or different browsers and applications. For example, the claims of the '755 patent utilize symbolic name associations and provide device-independent applications including those symbolic names, together with device-platform-dependent players, to devices. Further, input values and output values for the defined content are also communicated as symbolic names. Such features are specifically grounded in and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine, and conventional elements.

38. For example, the claimed inventions of the '755 patent recite innovative, technical improvements that associate symbolic names with defined UI objects (e.g., UI objects for a widget) corresponding to web components of web services, and produce device-independent applications including those symbolic names, together with device-dependent players, to provide more uniform, data-efficient content display across different types of devices.

39. The technology claimed in the '755 patent does not preempt all ways for the

Express Mobile, Inc., Exhibit 2011
Page 2011 - 9
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

computerized generation of code for a display of a device, nor any other well-known or prior art technology. For example, the specific, innovative technical improvements claimed in the '755 patent do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.

40. Each claim of the '755 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

41. On October 18, 2016, United States Patent No 9,471,287 entitled "Systems and Methods for Integrating Widgets on Mobile Devices," was duly and legally issued to Steven H. Rempell, David Chrobak and Ken Brown after full and fair examination. Plaintiff is the lawful owner of all right, title, and interest in and to the '287 patent, including the right to recover for infringement thereof. A copy of the '287 patent is attached as Exhibit D.

42. The inventions of the '287 patent solve technical problems, such as those associated with methods and systems for displaying dynamic content on displays of devices by providing more efficient ways of generating code for more uniformly displaying dynamic content across different kinds of devices. For example, the inventions of the '287 patent allow a data-efficient and flexible association between a symbolic name and a UI object (e.g., a UI object for a widget) corresponding to a web component of a web service, that is defined for presentation on a display of a device. The defined UI object can be selected by a user of an authoring tool or automatically selected by a system based on a web component selected by the user. Further, the symbolic name has a data format type corresponding to a subclass of UI objects that support the data format type of the symbolic name. A device-independent application including the symbolic name is then produced and provided to the device together with a device-platform-dependent player. Such operations provide a user-friendly platform allowing the UI object to be efficiently defined and more uniformly displayed across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems, and applications, including also for example both native and browser-based applications). These features are implemented utilizing computer technology and solve technical problems in the prior art.

43. The claims of the '287 patent do not recite merely the performance of a known

Express Mobile, Inc., Exhibit 2011
Page 2011 - 10
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

business practice on the Internet. Instead, the claims of the '287 patent recite inventive concepts grounded in the computerized, data-efficient definition and generation of content (e.g., a UI object for providing dynamic content) on displays for different types of devices, such as PC, tablet, or mobile devices, or different browsers and applications. Such features are specifically grounded in and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine, and conventional elements.

44. For example, the claimed inventions of the '287 patent recite innovative, technical improvements that associate symbolic names with UI objects (e.g., UI objects for a widget) corresponding to web components of web services that are manually or automatically selected, and defined based on, for example, data format type, and produce device-independent applications including those symbolic names, together with device-dependent players, to provide more uniform, data-efficient content display across different types of devices.

45. The technology claimed in the '287 patent does not preempt all ways for the computerized generation of code for a display of a device nor any other well-known or prior art technology. For example, the specific, innovative technical improvements do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.

46. Each claim of the '287 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

47. On March 27, 2018, United States Patent No 9,928,044 entitled "Systems and Methods for Integrating Widgets on Mobile Devices," was duly and legally issued to Steven H. Rempell, David Chrobak and Ken Brown after full and fair examination. Plaintiff is the lawful owner of all right, title, and interest in and to the '044 patent, including the right to recover for infringement thereof. A copy of the '044 patent is attached as Exhibit E.

48. The inventions of the '044 patent solve technical problems, such as those associated with methods and systems for displaying dynamic content on displays of devices by providing more efficient ways of generating, storing, and retrieving code for displaying dynamic content

Express Mobile, Inc., Exhibit 2011
Page 2011 - 11
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

more uniformly across different kinds of devices. For example, the inventions of the '044 patent allow a data-efficient and flexible association between a symbolic name with a UI object (e.g., a UI object for a widget) corresponding to a web component of a web service, that is manually or automatically selected. The symbolic name has a data format type corresponding to a subclass of UI objects that support the data format type of the symbolic name, and is only available to UI objects that support the data format of the symbolic name. Information representative of the defined UI object can be stored in a database, and subsequently retrieved from the database to build an application consisting of at least a portion of the database using a player, which uses the information to generate one or more web pages for display across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems, and applications, including also for example both native and browser-based applications). These features are implemented utilizing computer technology and solve technical problems in the prior art.

49. The claims of the '044 patent do not recite merely the performance of a known business practice on the Internet. Instead, the claims of the '044 patent recite inventive concepts grounded in the computerized, data-efficient definition, selection, storage and generation of content (e.g., a UI object providing dynamic content) on displays for different types of devices, such as PC, tablet, or mobile devices, or different browsers and applications. Such features are specifically grounded in and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine, and conventional elements.

50. For example, the claimed inventions of the '044 patent recite innovative, technical improvements that select and associate symbolic names with defined UI objects (e.g., UI objects for a widget) corresponding to web components of web services based on, for example, data format type, storing information representative of such settings in a database, and building applications, which together with players, generate more uniform, data-efficient content display across different types of devices.

51. The technology claimed in the '044 patent does not preempt all ways for the computerized generation of code for a display of a device nor any other well-known or prior art

Express Mobile, Inc., Exhibit 2011
Page 2011 - 12
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

technology. For example, the specific, innovative technical improvements do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.

52. Each claim of the '044 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

BACKGROUND

53. On information and belief, Defendants are providers of enterprise software products, including the SAP Enterprise Resource Planning (ERP) system, which help customers manage financials, logistics, human resources, and other business needs. On information and belief, Defendants manufacture, use, sell, and/or offer for sale the SAP Fiori User Experience (UX) platform ("Fiori"), an SAP Cloud product, which is used to access various SAP enterprise software products such as S/4HANA, C/4HANA, SAP Ariba and SAP Concur, and which on information and belief infringes each of the Patents-In-Suit.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 6,546,397

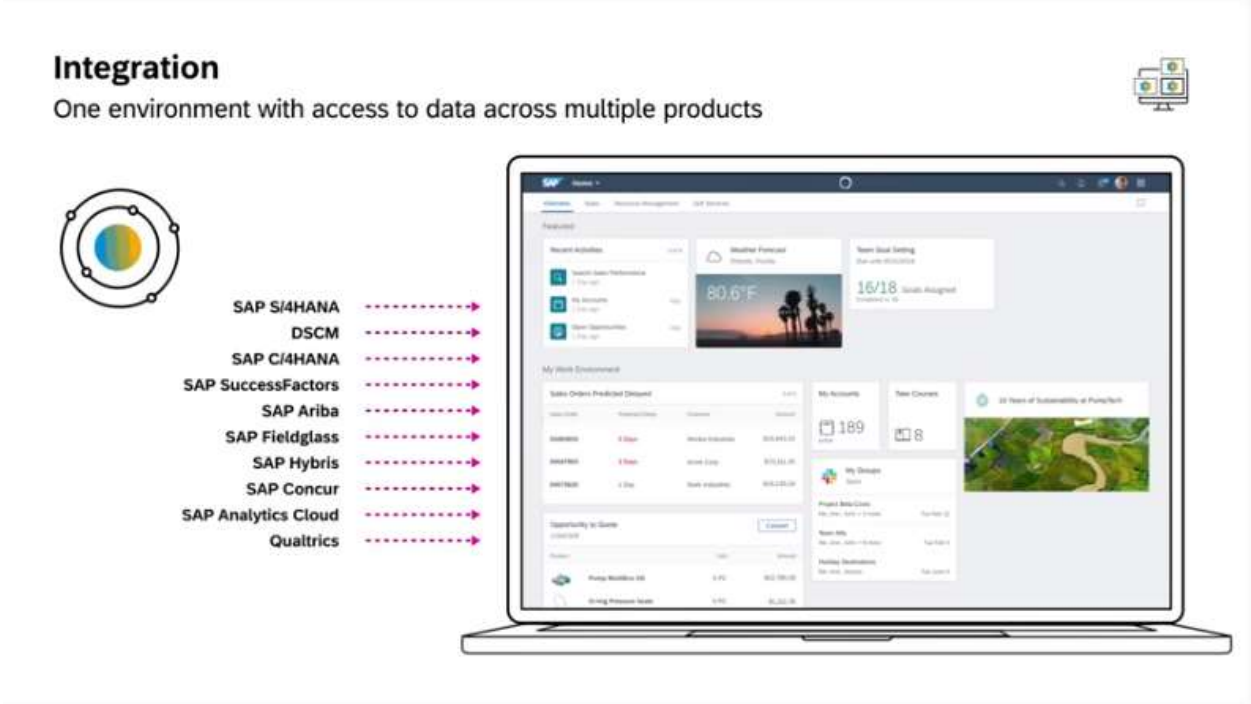
54. Plaintiff incorporates by reference paragraphs 1 to 53 above as if fully set forth herein.

55. On information and belief, Defendants have infringed the '397 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

56. On information and belief, Defendants have infringed the '397 patent by performing, without authority, one or more of the following acts during relevant time periods: making, using, offering to sell, selling within, and importing into, the United States products and services that practice the claimed inventions of the '397 patent, including but not limited to Fiori.

57. Defendants infringed at least claim 1 of the '397 patent through a combination of features in Fiori that collectively practiced each limitation of claim 1. By way of example, Fiori provided a platform for business customers to create and customize websites, such as the Fiori "launchpad," to manage their businesses. Through Fiori websites, business customers could access various SAP enterprise software products, such as S/4HANA, C/4HANA, SAP Ariba and SAP Concur.

https://www.sap.com/products/fiori.html;



https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo;

Design with SAP Fiori

Use the UI resources of our award-winning user experience for designing great enterprise software. We are constantly evolving it to make sure your users keep getting the best enterprise UX in the industry.

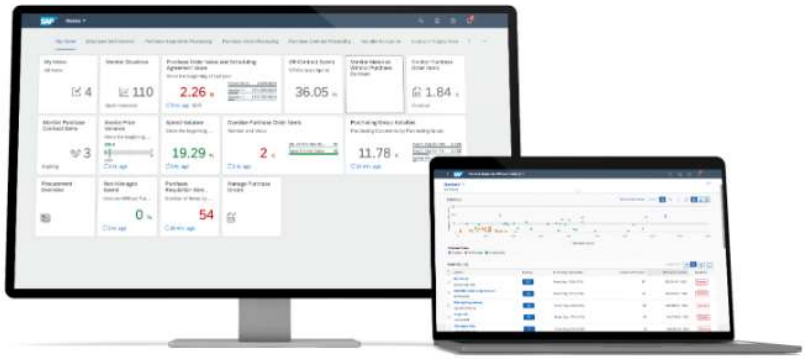
Design with SAP Fiori

https://www.sap.com/products/fiori.html

Develop with SAP Fiori

Build apps for your organization that are simple, preconfigured, and UI technology-independent. There are many ways to make use of the SAP Fiori design for your own projects.

Develop with SAP Fiori



https://www.sap.com/products/fiori.html.

58. Fiori websites were, during relevant times, created on and for computers having a browser and a virtual machine capable of generating displays. In particular, Fiori websites could be displayed through browsers supported by SAPUI5, the front-end development toolkit for Fiori. Supported browsers included Google Chrome, Safari, Internet Explorer, Mozilla Firefox, and Microsoft Edge, which used browser engines (virtual machines) capable of generating a display by interpreting and executing code such as JavaScript and HTML to render web pages on a computer.

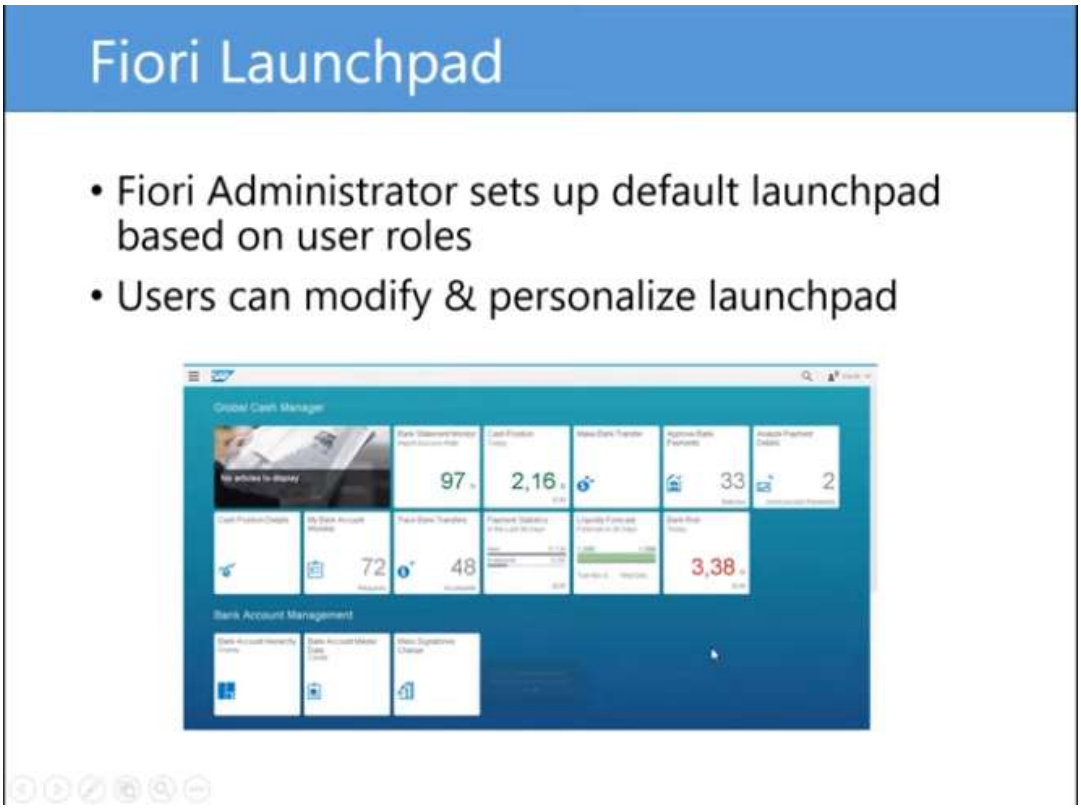
Express Mobile, Inc., Exhibit 2011
Page 2011 - 15
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

Platform	Device Category	Platform Version	Safari	Web View	Internet Explorer	Microsoft Edge (Chromium)	Microsoft Edge (EdgeHTML)[1]	Google Chrome	Mozilla Firefox
Windows	Desktop	Windows 8.1	-	-	Version 11[3]	-		Latest version	Latest version and Extended Support Release (ESR)[2, 6]
		Windows 10	-	Latest version		Latest 2 versions			
	Touch[4, 5]	Windows 10	-	Latest version	Version 11[3]	Latest 2 versions[6]		Latest version[6]	Latest version and Extended Support Release (ESR)[6]
macOS	Desktop	Latest 2 versions	Latest 2 versions	-	-	-		Latest version[4]	-
iOS	Phone and Tablet[4, 5]	Latest 2 versions	Latest 2 versions	Latest version[6]	-	-		-	-

https://help.sap.com/viewer/468a97775123488ab3345a0c48cadd8f/7.51.9/en-US/74b59efa0eef48988d3b716bd0ecc933.html.

59. By way of example, Fiori allowed users to set up a "launchpad" website that could be modified and personalized according to the user's taste and needs, through a viewable menu having a user selectable panel of settings describing elements on the launchpad.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 16
IPR2022-00597, Google LLC. v. Express Mobile, Inc.



https://www.youtube.com/watch?v=TCPuASmu1Js.

60. For example, a user could customize application "tiles" based on the services that the user needed. Each tile provided a customized business function, such as account management or sales tracking, for the user's business. A user could customize specific application tiles to be set as default applications on the launchpad.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 17
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

Intro

A tile is a container that represents an app on the SAP Fiori launchpad home page.

Tiles can display different types of content, which is based on data supplied by the app. They can contain an icon, a title, an informative text, KPIs, counters, and charts.

A **link** is a special representation of a tile. Links are displayed in a separate area below the tiles area and comprise a title and an optional subtitle. Most tile types can be converted to links, and links can be converted to tiles at any time.

Users can personalize their home page by selecting the tiles for the apps they want to use from the app finder. The apps available in the app finder depend on the user's role.

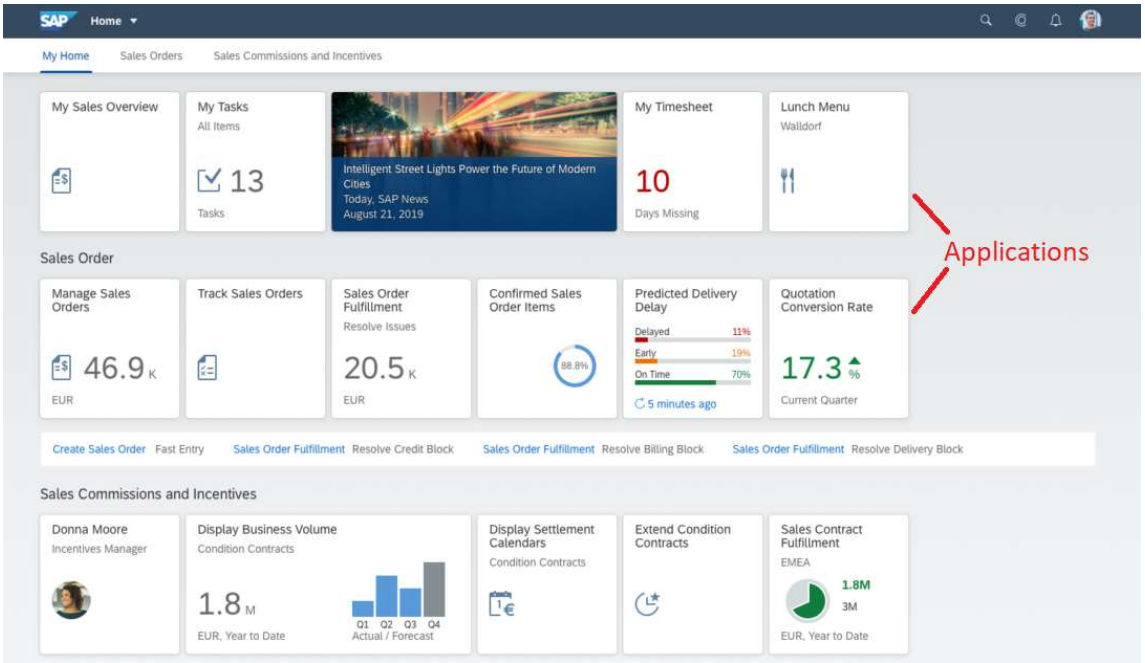
The number of visible tiles on the launchpad home page depends on the screen resolution. If the tiles in a group do not fit in one row, they are wrapped to the next row.

https://experience.sap.com/fiori-design-web/tile/;

SAP Fiori is a new user experience (UX) for SAP software and applications. It provides a set of applications that are used in regular business functions like work approvals, financial apps, calculation apps and various self-service apps.

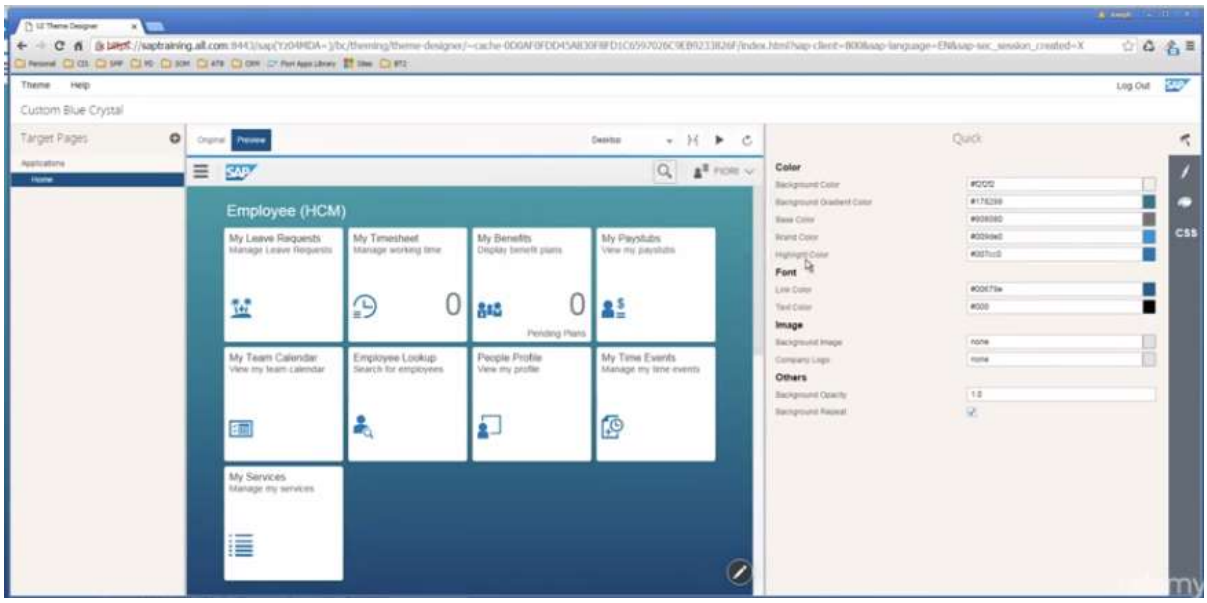
SAP Fiori provides 300+ role-based applications like HR, Manufacturing, finance, etc. When you open the SAP Fiori home page application, you will see a picture of the flowers. It is because Fiori means 'flowers' in Italian.

https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm;



https://www.sap.com/products/fiori.html.

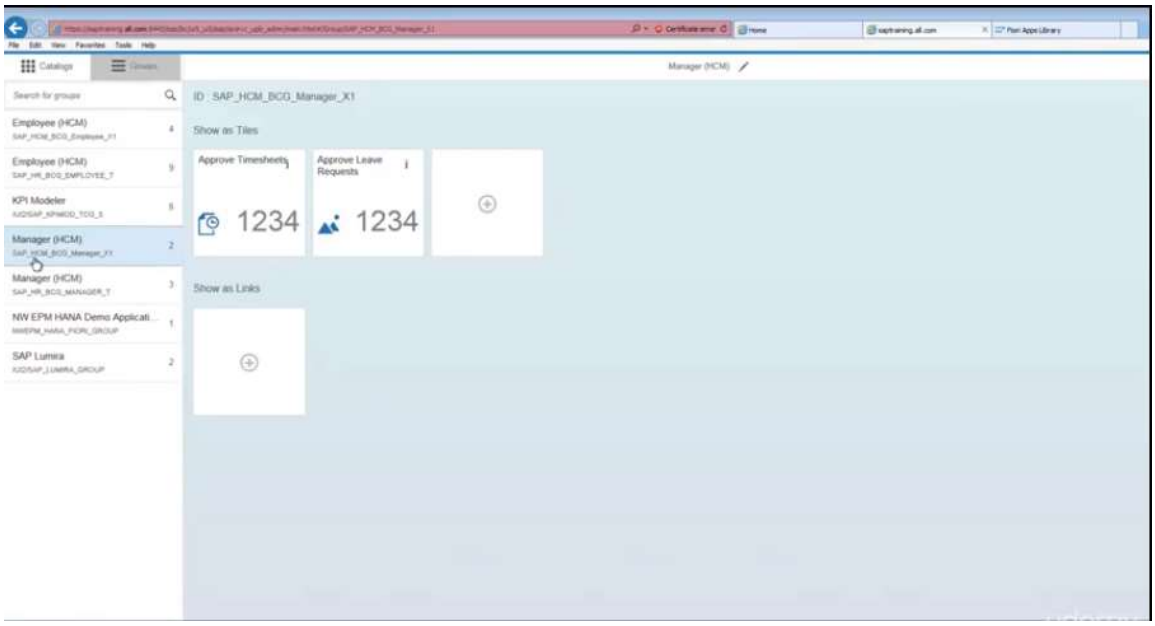
61. A user could also customize colors, font, and images for the Fiori launchpad.



https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9.

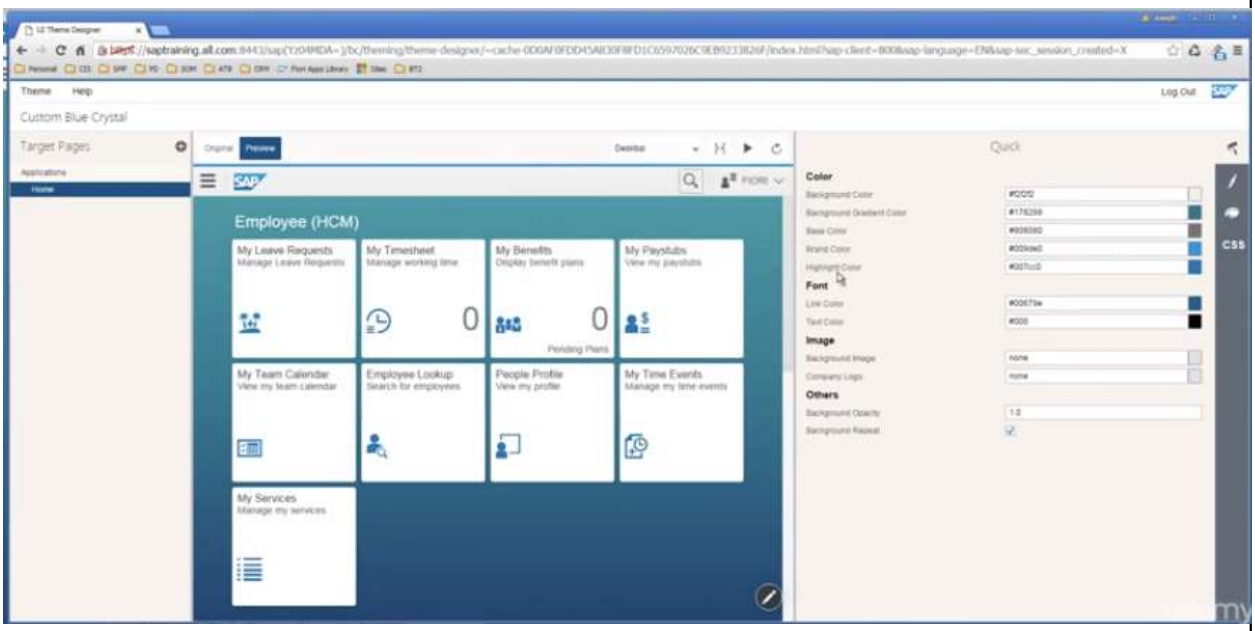
62. As described above, Fiori comprised a browser-based platform, and presented user selectable panels of settings through a browser of a computer, which rendered websites using a browser engine (a virtual machine) based on commands to the browser engine, for display on the browser.

63. When a desired setting was selected, a display in accordance with that selection was generated substantially contemporaneously with the selection. For example, when a user selected or rearranged the order of an application tile by dragging or clicking "+" the change was displayed substantially contemporaneously with the selection thereof.

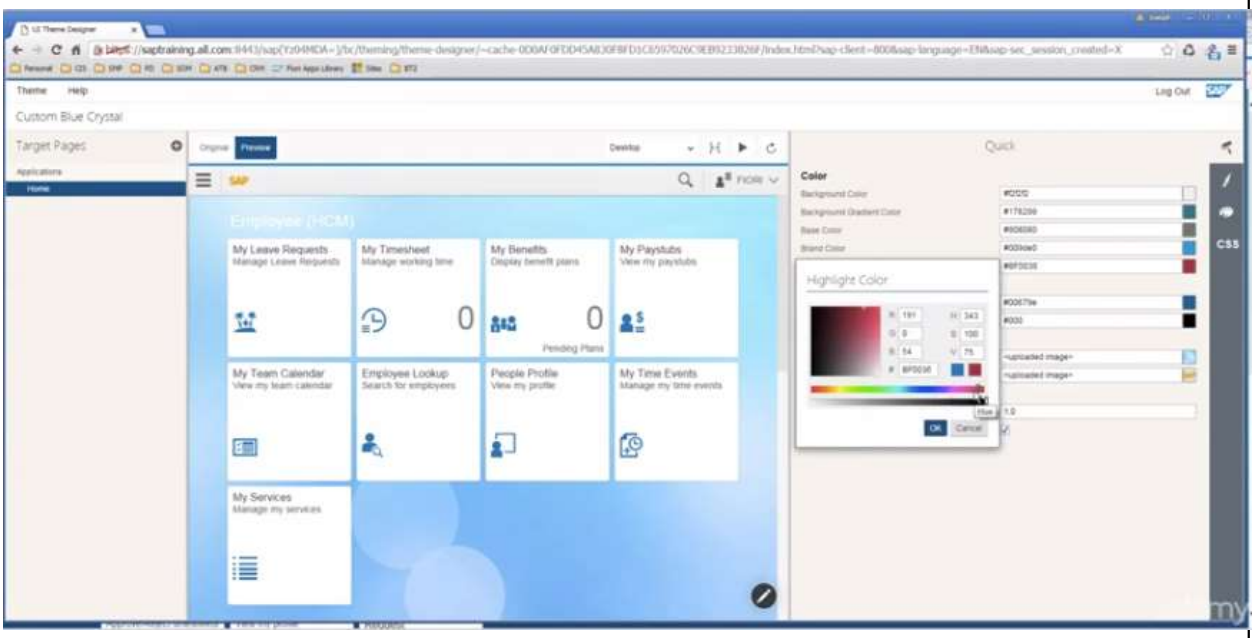


https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9.

64. As another example, when the user selected the setting for a background or font color, the change was displayed substantially contemporaneously with the selection thereof.

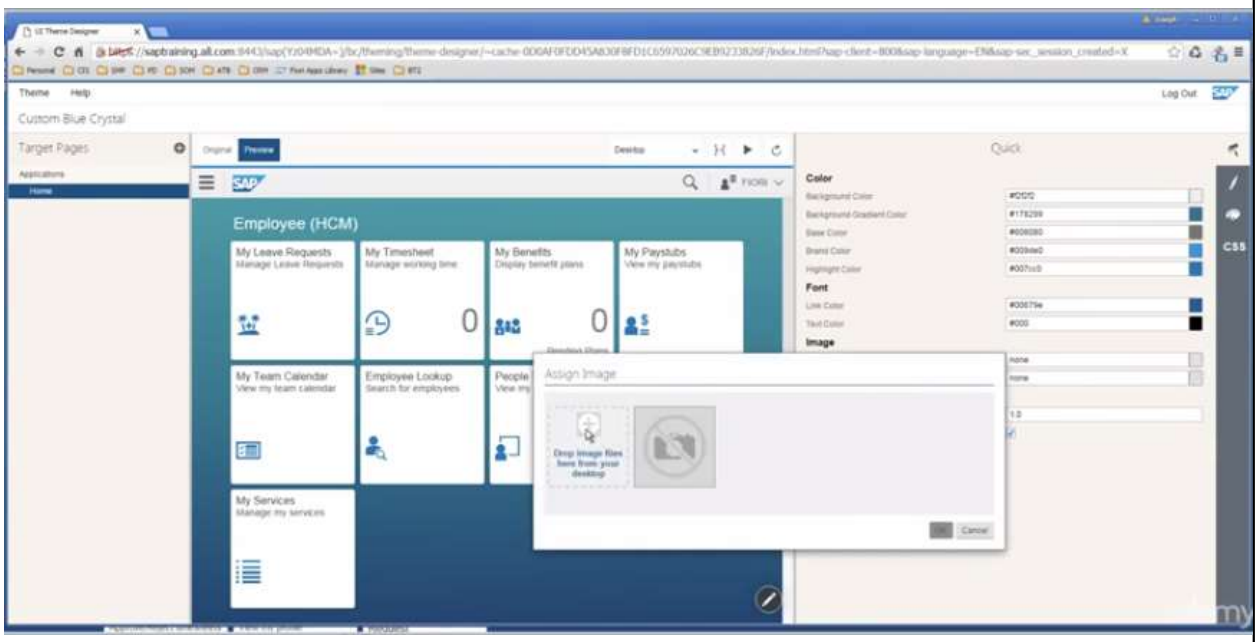


https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9;

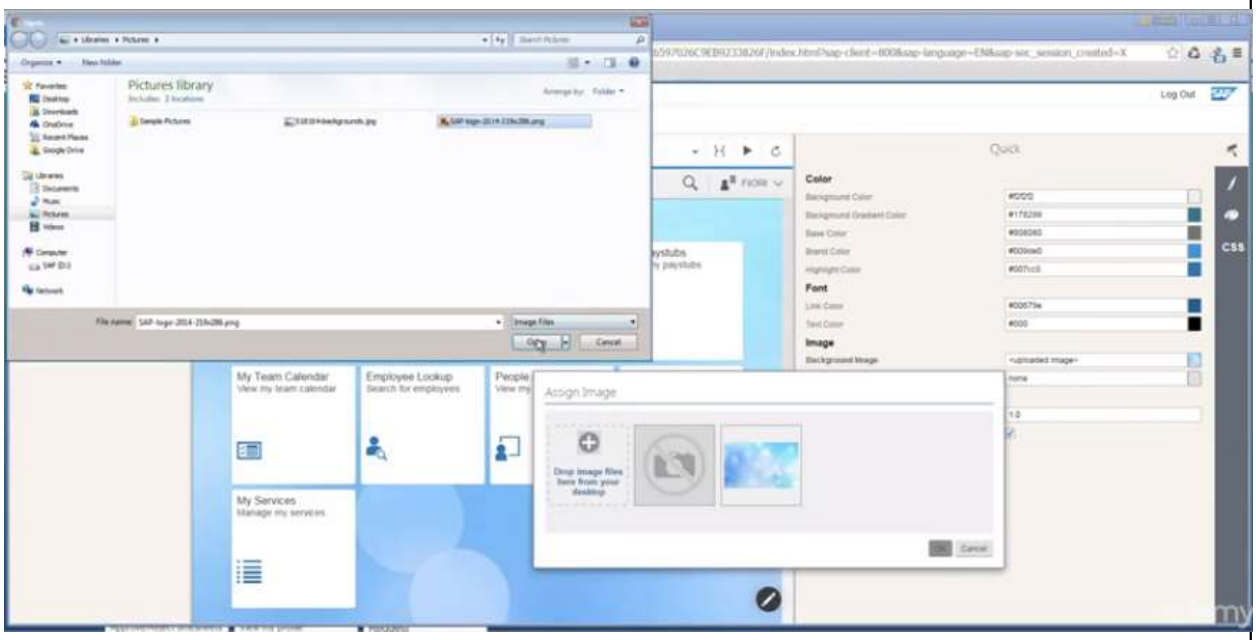


https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9.

65. As another example, when the user selected a specific background image for the launchpad, the image was displayed substantially contemporaneously with the selection thereof.



https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9;



https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9.

66. Upon selection of the desired setting, information representative of the selected setting was stored in an AS ABAP database that supported Fiori's front-end server, which itself

was supported by SAPUI5, a user interface (UI) development toolkit for Fiori websites.

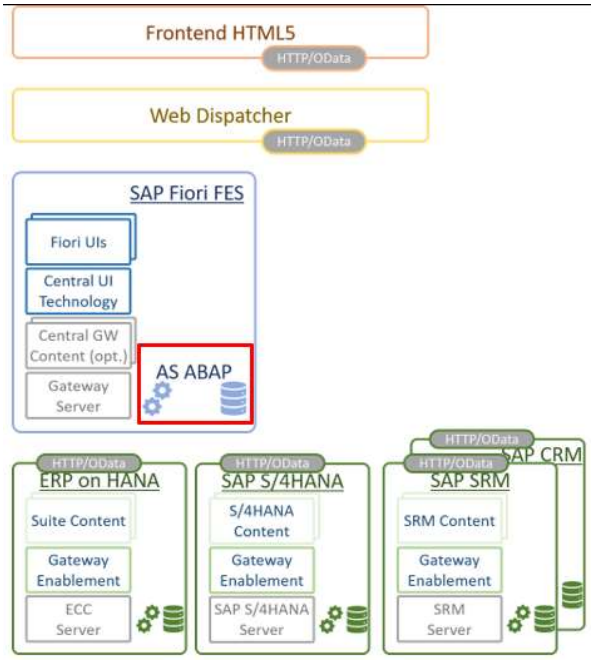
What is FES?

SAP Fiori front-end server (FES) offers a bundle of technology components that are required to run SAP Fiori scenarios. It contains the following:

- UI development toolkit for HTML5 (SAPUI5) framework and the components to run the SAP Fiori launchpad on the ABAP stack.
- SAP Gateway core components on the ABAP stack.
- SAP Fiori Implementation Foundation.
- SAP Fiori Basis Apps (available only with SAP NetWeaver 7.5 or higher).

SAP Fiori FES does not provide any new technical components. It has been created to define the exact stacks required for SAP Fiori application versions and thereby simplify customer consumption.

https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT;

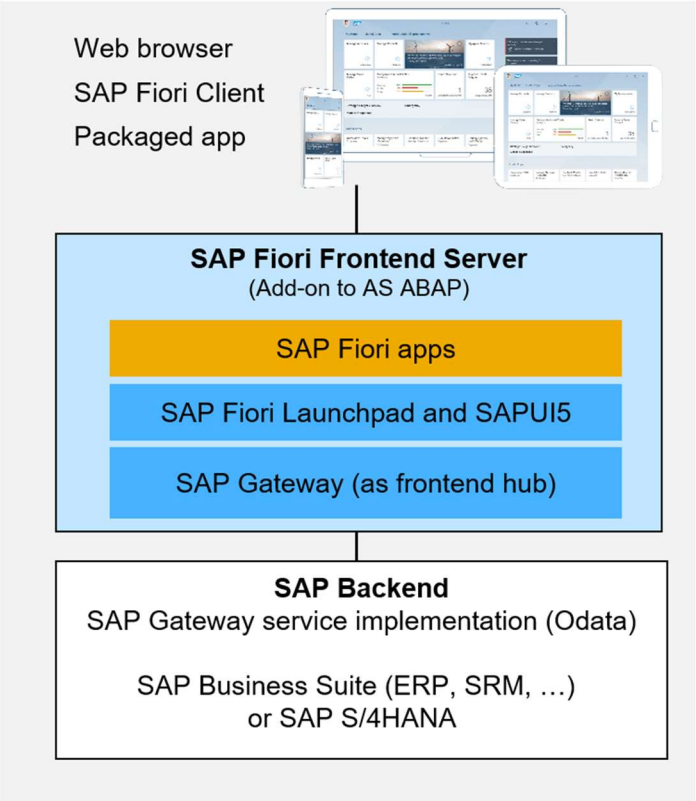


https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT;

Fiori apps are web applications, which need a SAPUI5 library and a Fiori Launchpad and last but not least an "SAP Fiori Front-end Server" on which all runs on premise or need SAP Fiori Cloud for cloud deployment.

Classic SAP GUI and Web Dynpro applications using SAP Fiori theme need an AS ABAP in the backend, which supports SAP Fiori theme. This is only the case for AS ABAP 7.51 and higher for S/4HANA.

https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/;



https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/.

67. A website for the Fiori launchpad was generated in part by retrieving the information and files from the database described above. On information and belief, a Fiori launchpad website was generated by using either SAPUI5 code or Fiori elements. Fiori elements were a set of common page types that were also built on SAPUI5. The Fiori elements accessed information and files from the AS ABAP database in the SAP back-end server via OData services.

What is SAP Fiori elements?
SAP Fiori elements is a set of several common page types that gives you a head start on developing applications that connect to data in SAP back-end systems. SAP Fiori elements is built on top of SAPUI5, SAP's HTML5 development toolkit. The main idea behind SAP Fiori elements is to generate an SAP Fiori app at runtime from an existing OData service (standard way to access data) with additional metadata (annotations that define attributes and relationships of the data).

Applications developed with SAP Fiori elements follow pre-defined patterns for the page types that are used. This also governs the navigation between the pages. These patterns cover most of Fiori application scenarios. For example, around 75% of all new Fiori apps in SAP S/4HANA follow these patterns and have been developed using SAP Fiori elements.

https://blogs.sap.com/2019/07/30/fiori-elements-is-for-designers-and-product-managers-not-just-developers/.

68. Fiori was used to build the Fiori launchpad website comprising one or more web pages. Each web page was built based on one or more page types provided by the SAP Fiori elements library. The page type consisted of a general page layout and several UI elements that could be assembled inside the layout. On information and belief, the page type was generated from SAPUI5 by incorporating HTML files, CSS files, and Javascript, which were stored in SAP's back-end database, accessible by OData services.

Supported Floorplans and Layouts

The following floorplans are available as SAP Fiori elements:

- Analytical list page
- List report
- Object page
- Overview page
- Worklist

The SAP Fiori elements framework supports the dynamic page layout for all available floorplans. In addition, the flexible column layout is supported for all available floorplans except the overview page, which is not allowed within the flexible column layout.

SAP Fiori elements use the global edit flow, which includes draft handling, or the local edit flow without draft handling. SAP Fiori elements also offer message handling.

https://experience.sap.com/fiori-design-web/smart-templates/

UI Frameworks based on HTML5, JavaScript and CSS

Use

With these technologies you can easily develop web applications based on standard technologies without deep knowledge of SAP programming languages. There are several ways to integrate these applications into the SAP NetWeaver Application Server.

UI development toolkit for HTML5 (SAPUI5)

SAPUI5 is a user interface technology for building and adapting client applications. The SAPUI5 runtime is a client-side HTML5 rendering library with a rich set of UI controls for building both desktop and mobile applications. To support you in developing applications, SAPUI5 tools come with a set of eclipse-based wizards and editors. They provide wizards to create application projects and views according to the Model View Controller concept, and other features like JavaScript code completion and in-place application preview.

When you use SAPUI5 on a SAP NetWeaver Application Server, you can store and run your SAPUI5 applications with the help of the SAPUI5 ABAP Repository.

SAPUI5 Application Frameworks

- **Analysis Path Framework** (APF) provides reuse components that allow building and enhancing interactive analytical Web applications. You can use these applications to explore KPIs and their influencing factors by drilling down into multidimensional representations of data, such as charts or tables.
- The **SAP Smart Business** modeler apps are a set of SAP Fiori apps that you use to create and manage SAP Smart Business entities.

SAP NetWeaver User Interface Services

As an extension to SAPUI5, you can use predefined OData services, such as the Launchpad Service, to retrieve data from the SAP NetWeaver Application Server. SAP NetWeaver user interface services offers a set of back-end services and front-end services. To decouple your UI, you use OData services for ABAP-based back-end systems based on an OData channel that is part of SAP NetWeaver Gateway. To couple to a new UI technology, you use front-end services.

https://help.sap.com/saphelp_em92/helpdata/en/58/e82251e8242514e10000000a44176d/content.htm?no_cache=true.

69. On information and belief, Fiori fetched the HTML, CSS, and Javascript files from the AS ABAP database via OData services and converted them with additional contents (e.g. JSON files and image files) into a working website to display. As shown in the example below, the OData services used standard HTTP GET, PUT, POST, DELETE, and QUERY methods to query and update data from the AS ABAP database.

SAP Gateway and OData

Use

By exposing SAP Business Suite functionality as REST-based OData (Open Data Protocol) services, SAP Gateway enables SAP applications to share data with a wide range of devices, technologies, and platforms in a way that is easy to understand and consume.

Using REST services provides the following advantages:

- Obtain human readable results; you can use your browser to see what data you will get.
- Use stateless applications
- Receive related pieces of information, one leading to another.
- Use standard GET, PUT, POST, DELETE, and QUERY. If you know where to GET data, you know where to PUT it, and you can use the same format.

What Is OData and Why Do We Use It?

OData is a Web protocol for querying and updating data, applying and building on Web technologies such as HTTP, Atom Publishing Protocol (AtomPub), and RSS (Really Simple Syndication) to provide access to information from a variety of applications. It is easy to understand and extensible, and provides consumers with a predictable interface for querying a variety of data sources.

AtomPub is the standard for treating groups of similar information snippets as it is simple, extensible, and allows anything textual in its content. However, as so much textual enterprise data is structured, there is also a requirement to express what structure to expect in a certain kind of information snippet. As these snippets can come in large quantities, they must be trimmed down to manageable chunks, sorted according to ad-hoc user preferences, and the result set must be stepped through page by page.

OData provides all of the above as well as additional features, such as feed customization that allows mapping part of the structured content into the standard Atom elements, and the ability to link data entities within an OData service (via "...related..." links) and beyond (via media link entries). This facilitates support of a wide range of clients with different capabilities:

- Purely Atom, simply paging through data.
- Hypermedia-driven, navigating through the data web.
- Aware of query options, tailoring the OData services to their needs.

OData is also extensible, like the underlying AtomPub, and thereby allows the addition of features that are required when building easy-to-use applications, both mobile and browser-based.

https://help.sap.com/doc/saphelp_nw74/7.4.16/en-US/ec/aeea50ca692309e10000000a445394/content.htm?no_cache=true.

70. The presence of the above referenced features, which on information and belief were present during relevant time periods of infringement, is demonstrated, by way of example, by reference to publicly available information, including the following:

- https://www.sap.com/products/fiori.html,
- https://www.sap.com/documents/2019/08/d6431654-627d-0010-87a3-c30de2ffd8ff.html,
- https://experience.sap.com/fiori/,
- https://experience.sap.com/fiori-design-web/a-beginners-guide-to-the-design-guidelines/,
- https://experience.sap.com/fiori-design-web/tile/,
- https://experience.sap.com/fiori-design-web-versions-1-26-and-1-28/concept/tile/,
- https://experience.sap.com/fiori-design-web/smart-templates/,
- https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT_

Express Mobile, Inc., Exhibit 2011
Page 2011 - 27
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

- https://help.sap.com/doc/abapdocu_752_index_htm/7.52/en-US/abenabap_sql.htm,
- https://help.sap.com/saphelp_em92/helpdata/en/58/e82251e8242514e10000000a44176d/frameset.htm,
- https://help.sap.com/doc/saphelp_nw74/7.4.16/en-US/ec/aeea50ca692309e10000000a445394/content.htm?no_cache=true,
- https://sapui5.hana.ondemand.com/,
- https://sapui5.hana.ondemand.com/#/topic/99ac68a5b1c3416ab5c84c99fefa250d,
- https://blogs.sap.com/2020/04/23/sap-ui5-vs-sap-fiori-elements-fe/,
- https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/,
- https://blogs.sap.com/2019/07/30/fiori-elements-is-for-designers-and-product-managers-not-just-developers/,
- https://www.youtube.com/watch?v=TCPuASmu1Js,
- https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9,
- https://www.youtube.com/watch?v=S1LBoU17vcM&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=7,
- https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo,
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm, and
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries.

71. On information and belief, Defendants have had knowledge of the '397 patent and its infringement thereof at least as early as July 28, 2019, and no later than November 30, 2020, when Plaintiff provided notice of the '397 patent and Defendants' infringement of the '397 patent. Furthermore, Defendants have been aware of the '397 patent and their infringement thereof since at least the filing of this complaint.

72. On information and belief, Defendants have contributed to the infringement of the '397 patent because Defendants knew that the infringing aspects of the infringing products and

Express Mobile, Inc., Exhibit 2011
Page 2011 - 28
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

services, including but not limited to the Accused Instrumentalities, were made for use in an infringement, and were not staple articles of commerce suitable for substantial non-infringing uses.

73. On information and belief, Defendants have induced the infringement of the '397 patent, with knowledge of the '397 patent and that their acts, including without limitation using, offering to sell, selling within, and importing into the United States, the Accused Instrumentalities, would aid and abet and induce infringement by customers, clients, partners, developers, and end users of the foregoing.

74. In particular, Defendants' actions that aided and abetted others such as customers, clients, partners, developers, and end users to infringe included advertising and distributing the Accused Instrumentalities, and providing instructional materials, training, and other services regarding the Accused Instrumentalities. Defendants actively encouraged the adoption of the Accused Instrumentalities and provided support sites for the vast network of developers working with the Accused Instrumentalities, emphasizing the user-friendly nature and diverse capabilities provided by the Accused Instrumentalities, explaining that Fiori "has redefined the way enterprise users work. With a new visual design and appearance, we are making work more delightful and are ready for the next-generation workforce," and "equips designers and developers with a set of tools and guidelines to create apps for any platform faster than ever – providing a consistent, innovative experience for both creators and users." (*See, e.g.*, https://www.sap.com/products/fiori.html.) On information and belief, Defendants engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendants had actual knowledge of the '397 patent and knowledge that their acts were inducing infringement of the '397 patent since at least the date Defendants received notice that their activities infringed the '397 patent.

75. Defendants' acts of infringement have caused damage to Plaintiff, and Plaintiff is entitled to recover damages from Defendants in an amount subject to proof at trial.

76. On information and belief, Defendants have acted with disregard of Plaintiff's patent rights, without any reasonable basis for doing so, and have willfully infringed the '397 patent.

77. The foregoing is illustrative of Defendants' infringement of the '397 patent. Plaintiff reserves the right to identify additional claims and Accused Instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

COUNT II – INFRINGEMENT OF U.S. PATENT NO. 7,594,168

78. Plaintiff incorporates by reference paragraphs 1 to 53 above as if fully set forth herein.

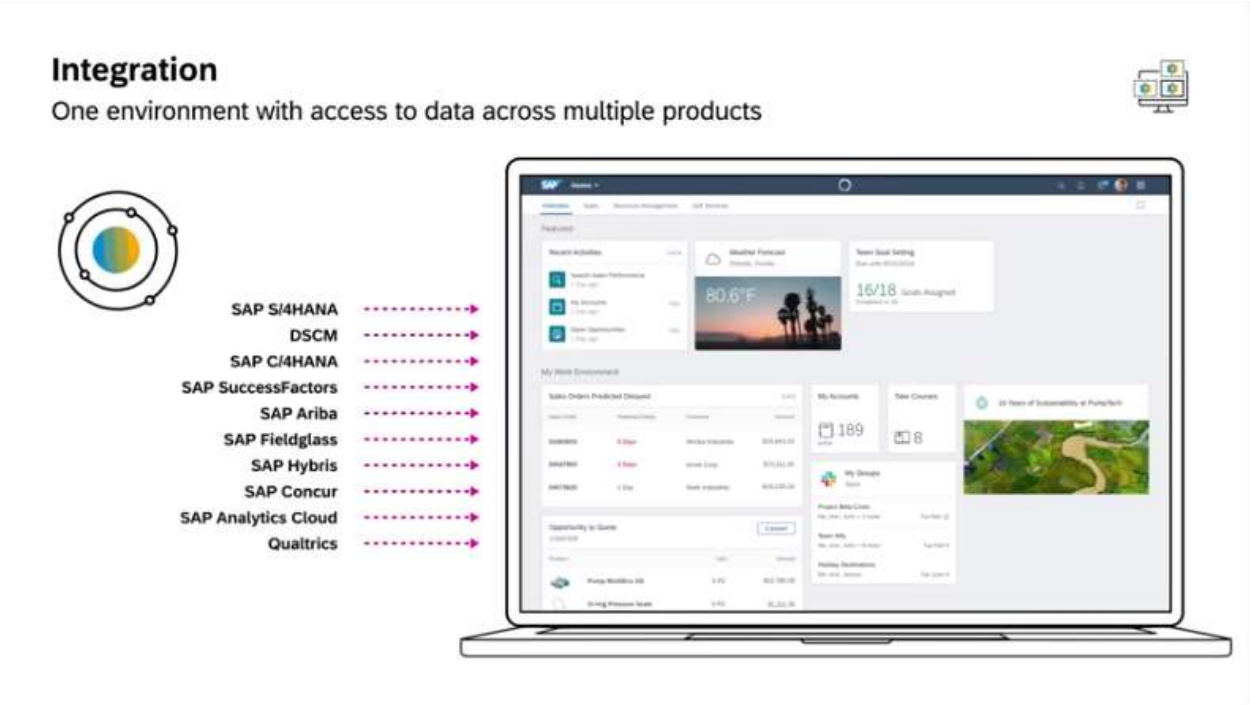
79. On information and belief, Defendants have infringed and are infringing the '168 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

80. On information and belief, Defendants have infringed and are infringing the '168 patent by performing, without authority, one or more of the following acts: making, using, offering to sell, selling within, and importing into, the United States products and services that practice the claimed inventions of the '168 patent, including but not limited to Fiori.

81. Defendants infringe at least claim 1 of the '168 patent through a combination of features in Fiori that collectively practice each limitation of claim 1. By way of example, Fiori provides a platform for business customers to create and customize websites, such as the Fiori "launchpad," to manage their businesses. Through Fiori websites, business customers can access various SAP enterprise software products, such as S/4HANA, C/4HANA, SAP Ariba and SAP Concur.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 30
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

https://www.sap.com/products/fiori.html;



https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo;

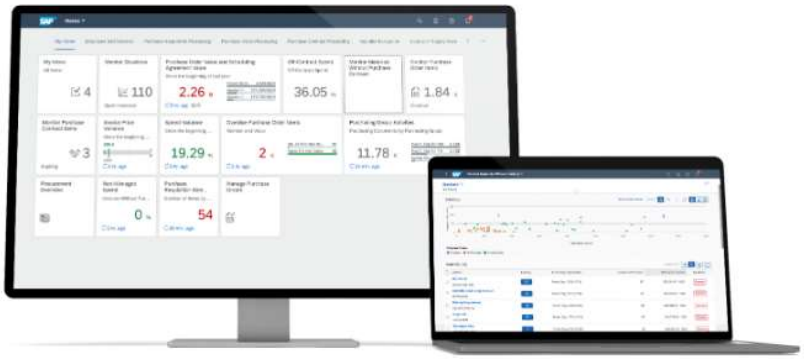
https://www.sap.com/products/fiori.html

Express Mobile, Inc., Exhibit 2011
Page 2011 - 32
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

Develop with SAP Fiori

Build apps for your organization that are simple, preconfigured, and UI technology-independent. There are many ways to make use of the SAP Fiori design for your own projects.

Develop with SAP Fiori



https://www.sap.com/products/fiori.html.

82. On information and belief, Fiori launchpads are operated and supported by Fiori's front-end server. The server includes a build engine configured to accept user input to create a website comprising a plurality of web pages that each include objects. For example, Fiori's front-end server operates on SAPUI5, a user interface (UI) development toolkit for Fiori websites, and uses SAPUI5 or Fiori elements to create a Fiori launchpad website on an AS ABAP stack database. In particular, the Fiori elements provide five page types to build the plurality of web pages. Each page type consists of a general page layout and several UI elements that can be assembled inside the layout.

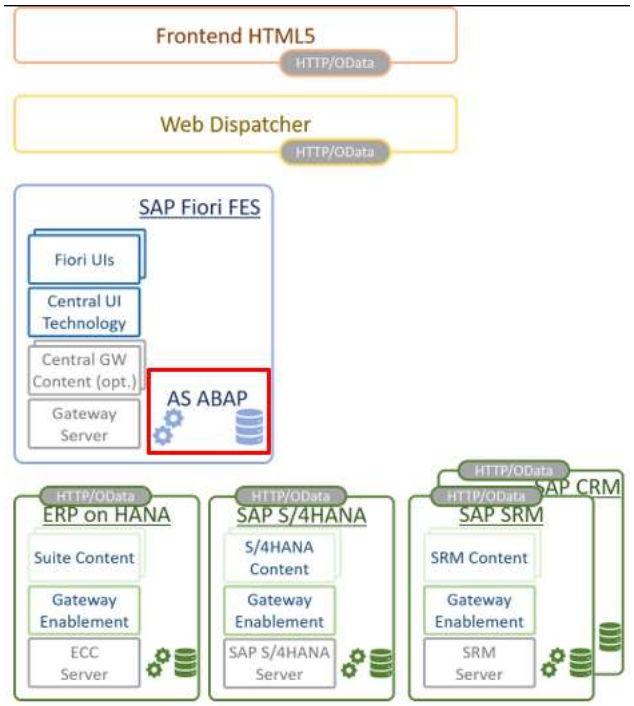
What is FES?

SAP Fiori front-end server (FES) offers a bundle of technology components that are required to run SAP Fiori scenarios. It contains the following:

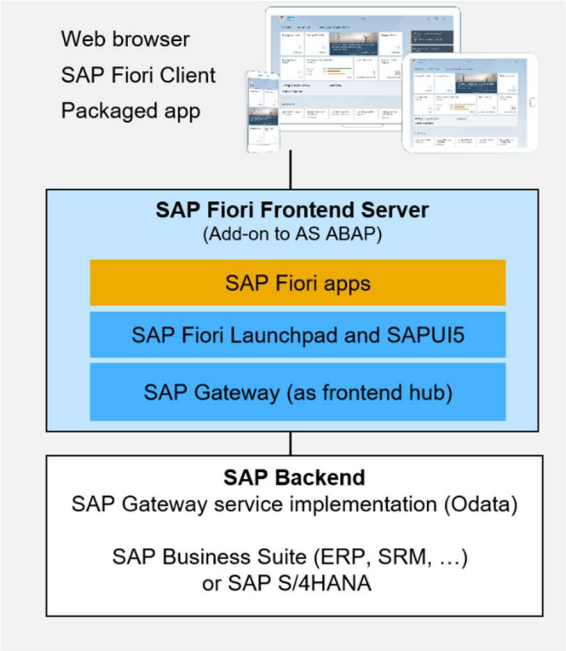
- UI development toolkit for HTML5 (SAPUI5) framework and the components to run the SAP Fiori launchpad on the ABAP stack.
- SAP Gateway core components on the ABAP stack.
- SAP Fiori Implementation Foundation.
- SAP Fiori Basis Apps (available only with SAP NetWeaver 7.5 or higher).

SAP Fiori FES does not provide any new technical components. It has been created to define the exact stacks required for SAP Fiori application versions and thereby simplify customer consumption.

https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT;



https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT;



https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/;

Supported Floorplans and Layouts

The following floorplans are available as SAP Fiori elements:

- Analytical list page
- List report
- Object page
- Overview page
- Worklist

The SAP Fiori elements framework supports the dynamic page layout for all available floorplans. In addition, the flexible column layout is supported for all available floorplans except the overview page, which is not allowed within the flexible column layout.

SAP Fiori elements use the global edit flow, which includes draft handling, or the local edit flow without draft handling. SAP Fiori elements also offer message handling.

https://experience.sap.com/fiori-design-web/smart-templates/

83. User input for a Fiori launchpad website may include selection and customization of specific application "tiles" to be added on the launchpad, and customization of background colors, font colors, background images, and company logos.

Intro

A tile is a container that represents an app on the SAP Fiori launchpad home page.

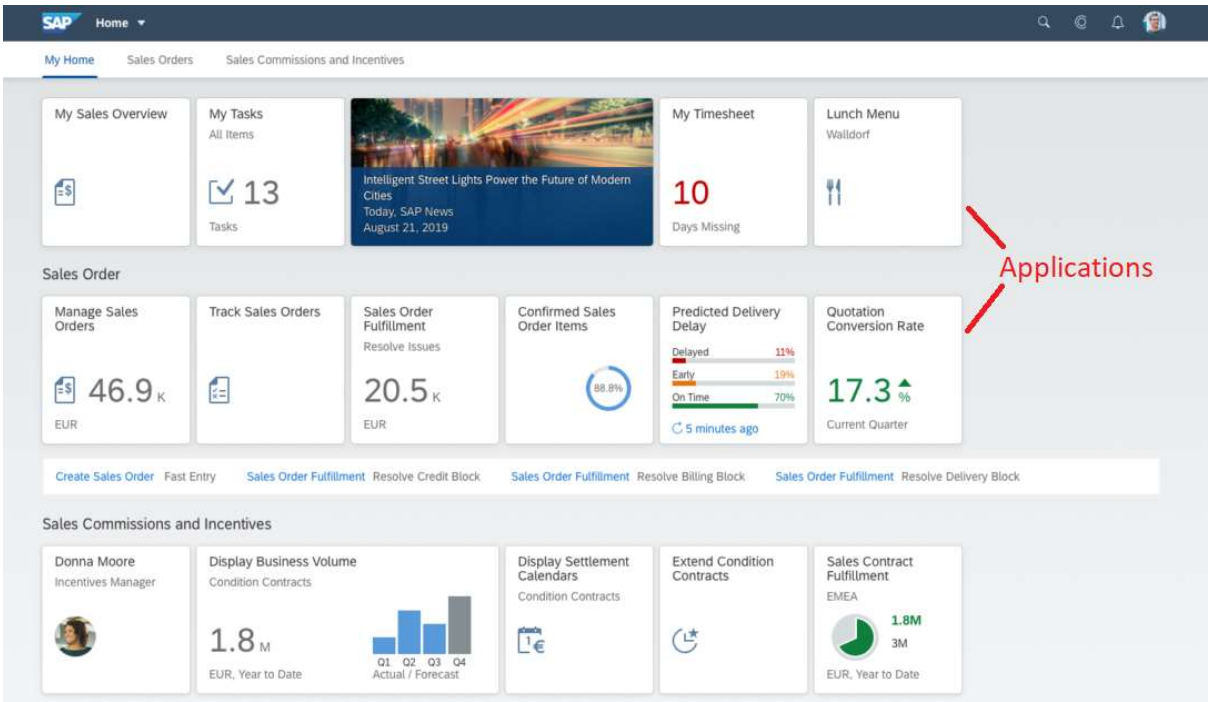
Tiles can display different types of content, which is based on data supplied by the app. They can contain an icon, a title, an informative text, KPIs, counters, and charts.

A **link** is a special representation of a tile. Links are displayed in a separate area below the tiles area and comprise a title and an optional subtitle. Most tile types can be converted to links, and links can be converted to tiles at any time.

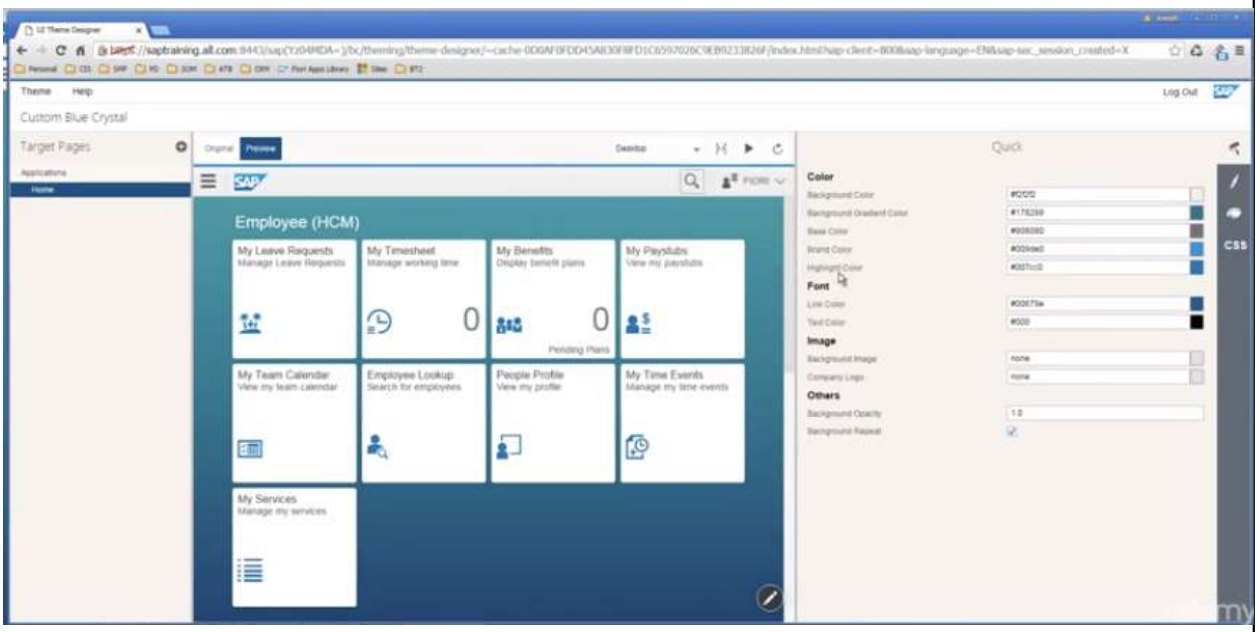
Users can personalize their home page by selecting the tiles for the apps they want to use from the app finder. The apps available in the app finder depend on the user's role.

The number of visible tiles on the launchpad home page depends on the screen resolution. If the tiles in a group do not fit in one row, they are wrapped to the next row.

https://experience.sap.com/fiori-design-web/tile/;



https://experience.sap.com/fiori-design-web/home-page/;



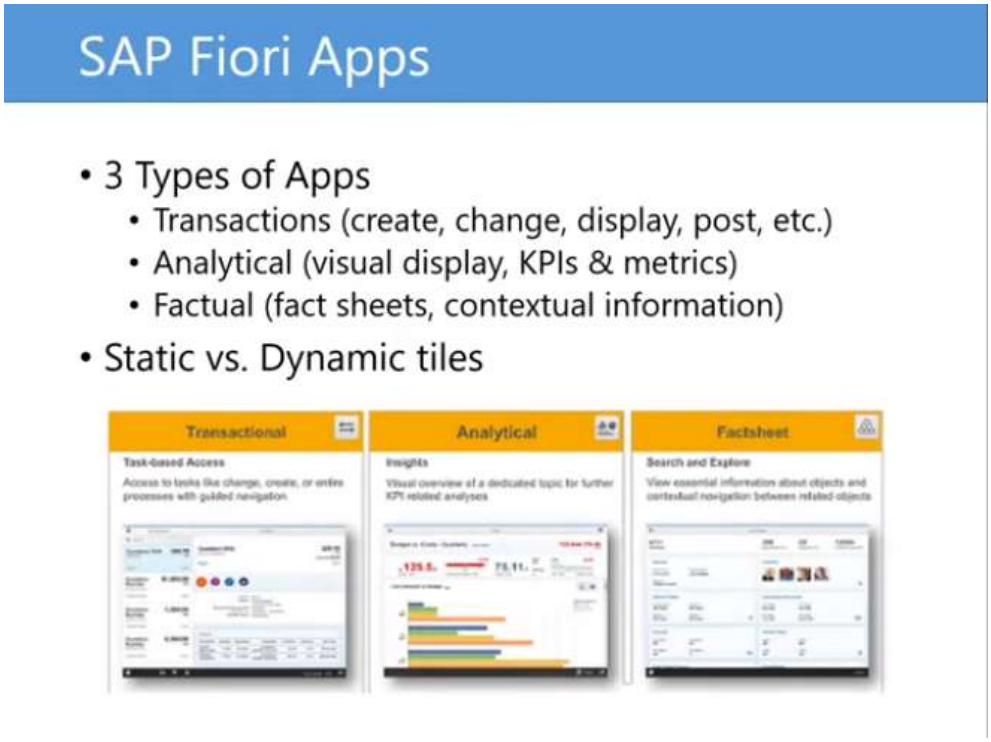
https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9.

84. A user may input a style to be associated with an image object on the Fiori launchpad. For example, as shown above, a user may associate a background color, a background

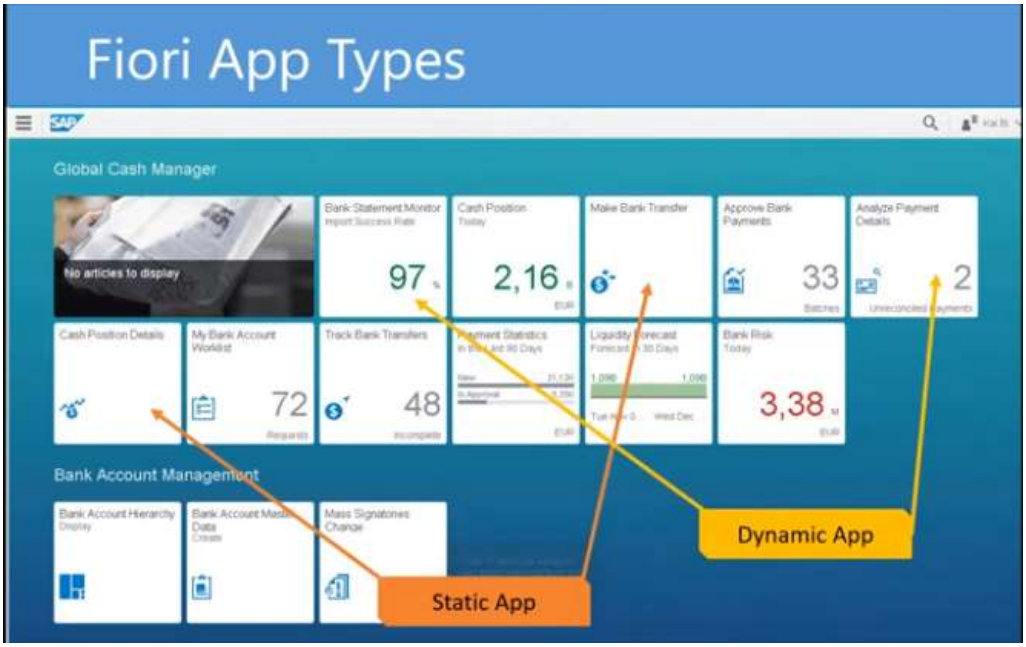
Express Mobile, Inc., Exhibit 2011 - Page 2011 - 36
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

gradient color a "background repeat" style with a background image. These styles are applied in each web page of the Fiori launchpad website.

85. An image may also take the form of one of the various application tiles described above. In this case, an application tile image may be associated with a style defining transformations and timelines for the tile. For example, Fiori application tiles can be categorized as transactional, analytical, or factual applications, and these can be further categorized as dynamic or static. Static applications are, as the name suggests, static. Dynamic applications, on the other hand, periodically update the information displayed on their tiles. On information and belief, the information that is periodically displayed on a dynamic application tile, as well as the frequency of such display, can be specified by a user by customizing, e.g., a refresh interval or cycle through rate. As another example, when a user hovers the mouse cursor over an application tile, the application tile may be configured to transform to show relevant data, such as images or figures provided by a web service associated with the tile.

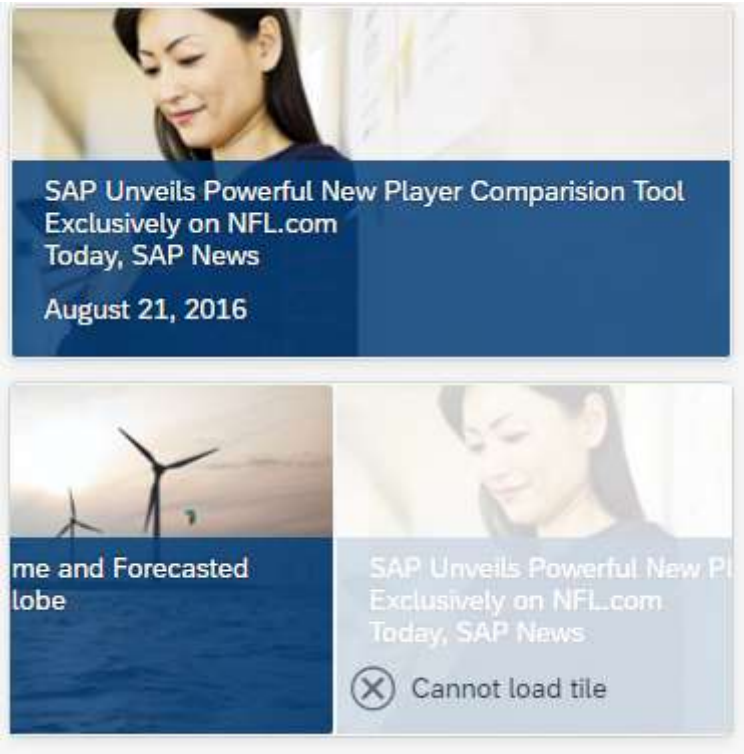


https://www.youtube.com/watch?v=TCPuASmu1Js;



https://www.youtube.com/watch?v=TCPuASmu1Js;

86. The example below illustrates a Feed tile showing an initial news article feed on top, and the same Feed tile transforming by sliding into a different feed at the bottom.



https://sapui5.hana.ondemand.com/#/entity/sap.m.SlideTile/sample/sap.m.sample.SlideTile.

87. Fiori is configured to produce a database with multidimensional array comprising the objects that comprise the website. For example, as described above, user inputs for the Fiori launchpad website are stored in an AS ABAP database. Data relevant for applications on a Fiori launchpad website, including metadata and technical data, are collected and managed centrally in the AS ABAP database.

ABAP Database Accesses

All the data relevant for all applications in AS ABAP, including metadata and technical data, is collected and managed centrally in the standard database. AS ABAP supports database systems from different vendors. The database objects used as data repositories and to access this data, such as database tables, database views, and stored procedures, are created as platform-specific objects by the ABAP-specific frameworks ABAP Dictionary (including ABAP CDS) and AMDP and are located in the ABAP database schema.

- In ABAP Dictionary, database tables, views, and CDS entities are defined as platform-independent objects. Instances of these objects are created in the ABAP database schema when they are activated. At the same time, database tables, views, and CDS entities defined in ABAP Dictionary are also structures in ABAP Dictionary and can be used as globally visible structured types in ABAP programs.
- The AMDP framework makes it possible to create ABAP-based definitions of AMDP procedures and AMDP functions in the ABAP database schema. In ABAP, they are called using either method calls or, in the case of CDS table functions, using Open SQL.

https://help.sap.com/doc/abapdocu_752_index_htm/7.52/en-US/abenabap_sql.htm.

88. A web browser with access to a runtime engine can then generate the user configured website including the user input objects and style data extracted from the AS ABAP database. On information and belief, Fiori fetches input objects and style data (e.g., HTML files, CSS files, and Javascript files) from the AS ABAP database via OData services and converts them with additional contents (e.g. JSON files and image files) into a working website to display. As shown in the example below, the SAPUI5 framework produces the user configured website based on the fetched HTML, CSS, and Javascript files. OData services use standard HTTP GET, PUT, POST, DELETE, and QUERY methods to query and update data from the AS ABAP database.

UI Frameworks based on HTML5, JavaScript and CSS

Use

With these technologies you can easily develop web applications based on standard technologies without deep knowledge of SAP programming languages. There are several ways to integrate these applications into the SAP NetWeaver Application Server.

UI development toolkit for HTML5 (SAPUI5)

SAPUI5 is a user interface technology for building and adapting client applications. The SAPUI5 runtime is a client-side HTML5 rendering library with a rich set of UI controls for building both desktop and mobile applications. To support you in developing applications, SAPUI5 tools come with a set of eclipse-based wizards and editors. They provide wizards to create application projects and views according to the Model View Controller concept, and other features like JavaScript code completion and in-place application preview.

When you use SAPUI5 on a SAP NetWeaver Application Server, you can store and run your SAPUI5 applications with the help of the SAPUI5 ABAP Repository.

SAPUI5 Application Frameworks

- **Analysis Path Framework** (APF) provides reuse components that allow building and enhancing interactive analytical Web applications. You can use these applications to explore KPIs and their influencing factors by drilling down into multidimensional representations of data, such as charts or tables.
- The **SAP Smart Business** modeler apps are a set of SAP Fiori apps that you use to create and manage SAP Smart Business entities.

SAP NetWeaver User Interface Services

As an extension to SAPUI5, you can use predefined OData services, such as the Launchpad Service, to retrieve data from the SAP NetWeaver Application Server. SAP NetWeaver user interface services offers a set of back-end services and front-end services. To decouple your UI, you use OData services for ABAP-based back-end systems based on an OData channel that is part of SAP NetWeaver Gateway. To couple to a new UI technology, you use front-end services.

https://help.sap.com/saphelp_em92/helpdata/en/58/e82251e8242514e10000000a44176d/content.htm?no_cache=true.

SAP Gateway and OData

Use

By exposing SAP Business Suite functionality as REST-based OData (Open Data Protocol) services, SAP Gateway enables SAP applications to share data with a wide range of devices, technologies, and platforms in a way that is easy to understand and consume.

Using REST services provides the following advantages:

- Obtain human readable results; you can use your browser to see what data you will get.
- Use stateless applications
- Receive related pieces of information, one leading to another.
- Use standard GET, PUT, POST, DELETE, and QUERY. If you know where to GET data, you know where to PUT it, and you can use the same format.

What Is OData and Why Do We Use It?

OData is a Web protocol for querying and updating data, applying and building on Web technologies such as HTTP, Atom Publishing Protocol (AtomPub), and RSS (Really Simple Syndication) to provide access to information from a variety of applications. It is easy to understand and extensible, and provides consumers with a predictable interface for querying a variety of data sources.

AtomPub is the standard for treating groups of similar information snippets as it is simple, extensible, and allows anything textual in its content. However, as so much textual enterprise data is structured, there is also a requirement to express what structure to expect in a certain kind of information snippet. As these snippets can come in large quantities, they must be trimmed down to manageable chunks, sorted according to ad-hoc user preferences, and the result set must be stepped through page by page.

OData provides all of the above as well as additional features, such as feed customization that allows mapping part of the structured content into the standard Atom elements, and the ability to link data entities within an OData service (via "...related..." links) and beyond (via media link entries). This facilitates support of a wide range of clients with different capabilities:

- Purely Atom, simply paging through data.
- Hypermedia-driven, navigating through the data web.
- Aware of query options, tailoring the OData services to their needs.

OData is also extensible, like the underlying AtomPub, and thereby allows the addition of features that are required when building easy-to-use applications, both mobile and browser-based.

https://help.sap.com/doc/saphelp_nw74/7.4.16/en-US/ec/aeea50ca692309e10000000a445394/content.htm?no_cache=true.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 40
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

89. The presence of the above referenced features is demonstrated, by way of example, by reference to publicly available information, including the following:

- https://www.sap.com/products/fiori.html,
- https://www.sap.com/documents/2019/08/d6431654-627d-0010-87a3-c30de2ffd8ff.html,
- https://experience.sap.com/fiori/,
- https://experience.sap.com/fiori-design-web/a-beginners-guide-to-the-design-guidelines/,
- https://experience.sap.com/fiori-design-web/tile/,
- https://experience.sap.com/fiori-design-web-versions-1-26-and-1-28/concept/tile/,
- https://experience.sap.com/fiori-design-web/smart-templates/,
- https://experience.sap.com/fiori-design-web/home-page/,
- https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT,
- https://help.sap.com/doc/abapdocu_752_index_htm/7.52/en-US/abenabap_sql.htm,
- https://help.sap.com/saphelp_em92/helpdata/en/58/e82251e8242514e10000000a44176d/frameset.htm,
- https://help.sap.com/doc/saphelp_nw74/7.4.16/en-US/ec/aeea50ca692309e10000000a445394/content.htm?no_cache=true,
- https://sapui5.hana.ondemand.com/,
- https://sapui5.hana.ondemand.com/#/topic/99ac68a5b1c3416ab5c84c99fefa250d,
- https://sapui5.hana.ondemand.com/#/entity/sap.m.SlideTile/sample/sap.m.sample.SlideTile,
- https://blogs.sap.com/2020/04/23/sap-ui5-vs-sap-fiori-elements-fe/,
- https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/,
- https://blogs.sap.com/2019/07/30/fiori-elements-is-for-designers-and-product-managers-not-just-developers/,
- https://www.youtube.com/watch?v=TCPuASmu1Js,
- https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9,

- https://www.youtube.com/watch?v=S1LBoU17vcM&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=7,
- https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo,
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm, and
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries.

90. On information and belief, Defendants have had knowledge of the '168 patent and their infringement thereof at least as early as July 28, 2019, and no later than November 30, 2020, when Plaintiff provided notice of the '168 patent and Defendants' infringement of the '168 patent. Furthermore, Defendants have been aware of the '168 patent and their infringement thereof since at least the filing of this complaint.

91. On information and belief, Defendants have contributed and are contributing to the infringement of the '168 patent because Defendants know that the infringing aspects of the infringing products and services, including but not limited to the Accused Instrumentalities, are made for use in an infringement, and are not staple articles of commerce suitable for substantial non-infringing uses.

92. On information and belief, Defendants have induced and are inducing the infringement of the '168 patent, with knowledge of the '168 patent and that their acts, including without limitation using, offering to sell, selling within, and importing into the United States, the Accused Instrumentalities, would aid and abet and induce infringement by customers, clients, partners, developers, end users of the foregoing.

93. In particular, Defendants' actions that aid and abet others such as customers, clients, partners, developers, and end users to infringe include advertising and distributing the Accused Instrumentalities, and providing instructional materials, training, and other services regarding the Accused Instrumentalities. Defendants actively encourage the adoption of the Accused Instrumentalities and provide support sites for the vast network of developers working with the Accused Instrumentalities, emphasizing the user-friendly nature and diverse capabilities provided

Express Mobile, Inc., Exhibit 2011
Page 2011 - 42
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

by the Accused Instrumentalities, explaining that Fiori "has redefined the way enterprise users work. With a new visual design and appearance, we are making work more delightful and are ready for the next-generation workforce," and "equips designers and developers with a set of tools and guidelines to create apps for any platform faster than ever – providing a consistent, innovative experience for both creators and users." (*See, e.g.*, https://www.sap.com/products/fiori.html.) On information and belief, Defendants have engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendants have had actual knowledge of the '168 patent and knowledge that their acts were inducing infringement of the '168 patent since at least the date Defendants received notice that their activities infringed the '168 patent.

94. Defendants' acts of infringement have caused damage to Plaintiff, and Plaintiff is entitled to recover damages from Defendants in an amount subject to proof at trial.

95. Defendants' infringement of Plaintiff's rights under the '168 patent will continue to damage Plaintiff's business, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

96. On information and belief, Defendants have acted with disregard of Plaintiff's patent rights, without any reasonable basis for doing so, and have willfully infringed and do willfully infringe the '168 patent.

97. The foregoing is illustrative of Defendants' infringement of the '168 patent. Plaintiff reserves the right to identify additional claims and Accused Instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

COUNT III – INFRINGEMENT OF U.S. PATENT NO. 9,063,755

98. Plaintiff incorporates by reference paragraphs 1 to 53 above as if fully set forth herein.

99. On information and belief, Defendants have infringed and are infringing the '755 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

100. On information and belief, Defendants have infringed and are infringing the '755

Express Mobile, Inc., Exhibit 2011
Page 2011 - 43
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

patent by performing, without authority, one or more of the following acts: making, using, offering to sell, selling within, and importing into, the United States products and services that practice the claimed inventions of the '755 patent, including but not limited to Fiori.

101. Defendants infringe at least claim 12 of the '755 patent through a combination of features in Fiori that collectively practice each claimed limitation of claim 12. By way of example, Fiori provides a platform for business customers to create and customize websites, such as the Fiori "launchpad," to manage their businesses. Through Fiori websites, business customers can access various SAP enterprise software products, such as S/4HANA, C/4HANA, SAP Ariba and SAP Concur.

https://www.sap.com/products/fiori.html;

Design with SAP Fiori

Use the UI resources of our award-winning user experience for designing great enterprise software. We are constantly evolving it to make sure your users keep getting the best enterprise UX in the industry.

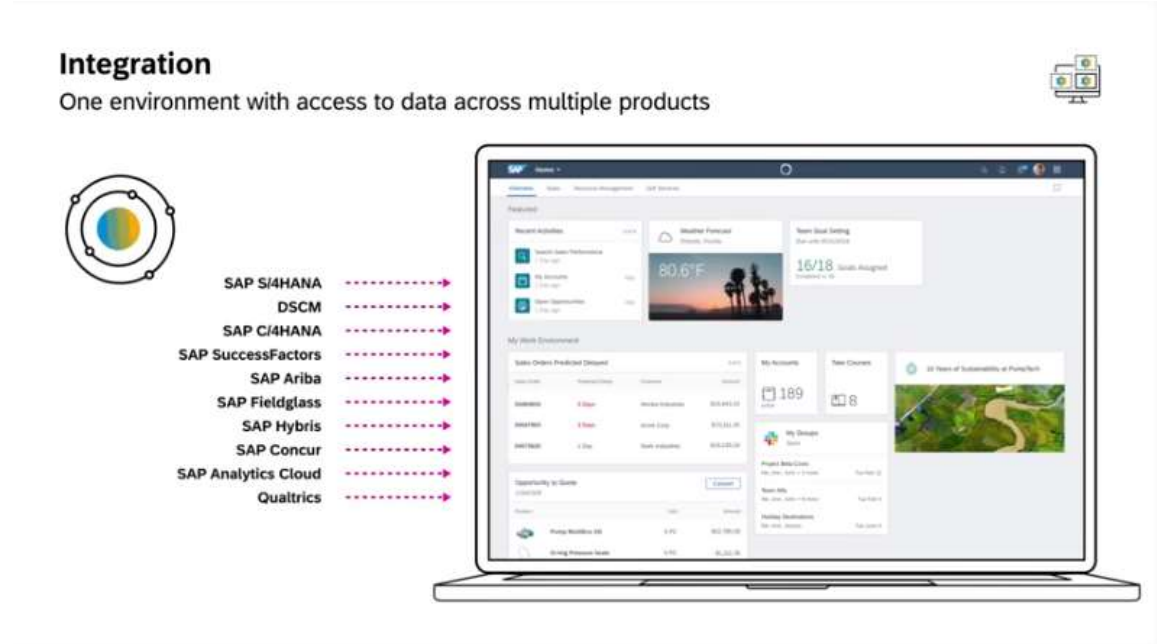
Design with SAP Fiori

Express Mobile, Inc., Exhibit 2011
Page 2011 - 44
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

https://www.sap.com/products/fiori.html

https://www.sap.com/products/fiori.html;

https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo.



102. Fiori utilizes a registry of web components related to inputs and outputs of web services, with each web component including a plurality of corresponding symbolic names for inputs and outputs. Web services on Fiori include various role-based applications that may be integrated on the Fiori launchpad through "tiles." These applications provide business management and operation web services to business customers, such as those relating to

Express Mobile, Inc., Exhibit 2011
Page 2011 - 45
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

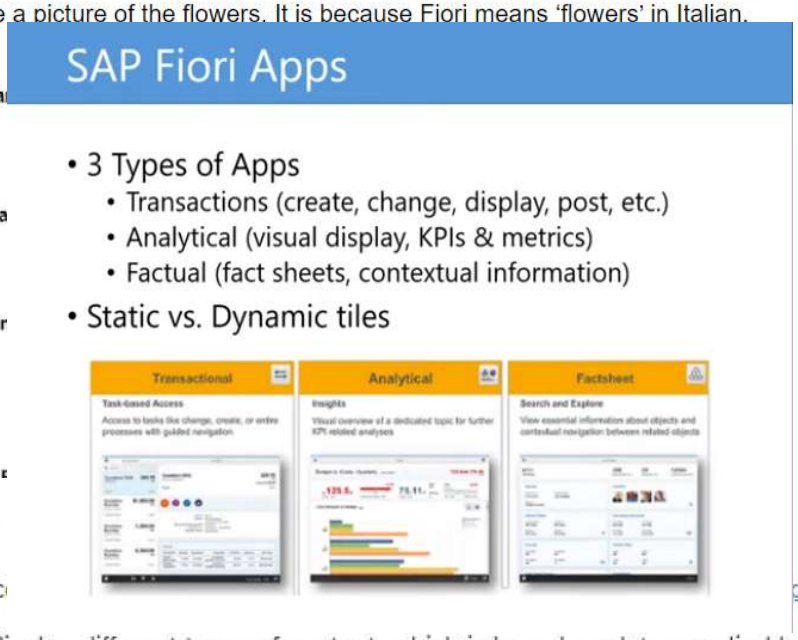
manufacturing, sales, finance, and human resources.

https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm;

https://experience.sap.com/fiori-design-web/tile/;

SAP Fiori is a new user experience (UX) for SAP software and applications. It provides a set of applications that are used in regular business functions like work approvals, financial apps, calculation apps and various self-service apps.

SAP Fiori provides 300+ role-based applications like HR, Manufacturing, finance, etc. When you open the SAP Fiori home page application, you will see a picture of the flowers. It is because Fiori means 'flowers' in Italian.



Intro

A tile is a c page.

Tiles can display different types of content, which is based on data supplied by the app. They can contain an icon, a title, an informative text, KPIs, counters, and charts.

A **link** is a special representation of a tile. Links are displayed in a separate area below the tiles area and comprise a title and an optional subtitle. Most tile types can be converted to links, and links can be converted to tiles at any time.

Users can personalize their home page by selecting the tiles for the apps they want to use from the app finder. The apps available in the app finder depend on the user's role.

The number of visible tiles on the launchpad home page depends on the screen resolution. If the tiles in a group do not fit in one row, they are wrapped to the next row.

103. Fiori applications provide web services that can be categorized as transactional, analytical, or factual. Each of these, in turn, can be further categorized as static or dynamic. Static applications are, as their name suggest, static, while dynamic applications periodically update the

Express Mobile, Inc., Exhibit 2011
Page 2011 - 46
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

information that is displayed on their tiles in the Fiori launchpad.

https://www.youtube.com/watch?v=TCPuASmu1Js;

https://www.youtube.com/watch?v=TCPuASmu1Js.

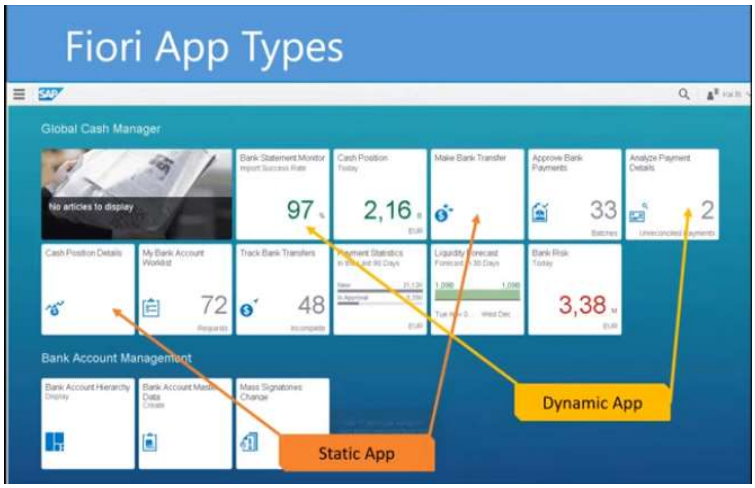
104. On information and belief, Fiori, which operates on the SAPUI5 front-end

SAP UI5 is a Java script based framework that is used to design multi-platform business applications. It supports various data models and views do desktop and mobile applications. SAP UI5 compiles on open Ajax and can be combined with java script libraries.

SAP UI5 was initially named phoenix that was later changed to **SAP UI5** in 2011.

Key UI Technologies

- Web Dynpro ABAP and Floorplan manager tool can be used for creating new applications.
- SAP UI5 and UI5 application development tools to change adapt or develop new applications.
- SAP Dynpro is used to include Screen Personas for GUI optimization



development toolkit, utilizes JSON data to evoke web components for the Fiori applications and to communicate inputs and outputs for the applications.

https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries.; https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries..

105. JSON data comprise key/value pairs that are essentially character strings (i.e., symbolic names) with no persistent address or pointer. A Fiori launchpad website can include a dynamic tile application displaying, for example, real-time KPI values with large, easy-to-recognize digits. On information and belief, the real-time KPI values and other contents for the application tile can be retrieved from SAP's back-end database in the form of JSON dataset. The retrieved real-time KPI values and other contents are rendered in the front-end by SAPUI5 and

Model-View-Controller Concept

MVC consists of three concepts. Views can be defined using different languages like Java Scripts, HTML. Controller is used to bound the Views and Models are used with Views.

Views − It can be defined using XML with HTM, mixed or standalone

- **XML** − (sap.ui.core.mvc.xmlview)
- **JavaScript** − (sap.ui.core.mvc.JSView)
- **JSON** − (sap.ui.core.mvc.JSONView)
- **HTML** − (sap.ui.core.mvc.HTMLView)

Controller − Controllers are bound to a view. It can also be used with multiple views

Model − Data binding can be used on the views.

converted into an active KPI tile for display.

KPI Tile

Key performance indicators (KPIs) are used to measure and monitor a company's performance at a strategic and operational level.

The tile displays the KPI values as large, easy-to-recognize digits. In addition, you can show deviation arrows, negative values, and scaling factors. You can also use semantic colors to emphasize the content. The number of digits is limited by the size of the tiles.

You can use the 2×1 tile to combine the content of two tiles into one. For example, you can show a KPI next to a comparison chart (as shown on the right), or use any other combination such as KPI/KPI, chart/chart, and so on. You can show different information in both the content and status areas. However, in all other respects, the 2×1 tile behaves as one tile – with one headline, subtitle, clickable area, and target.

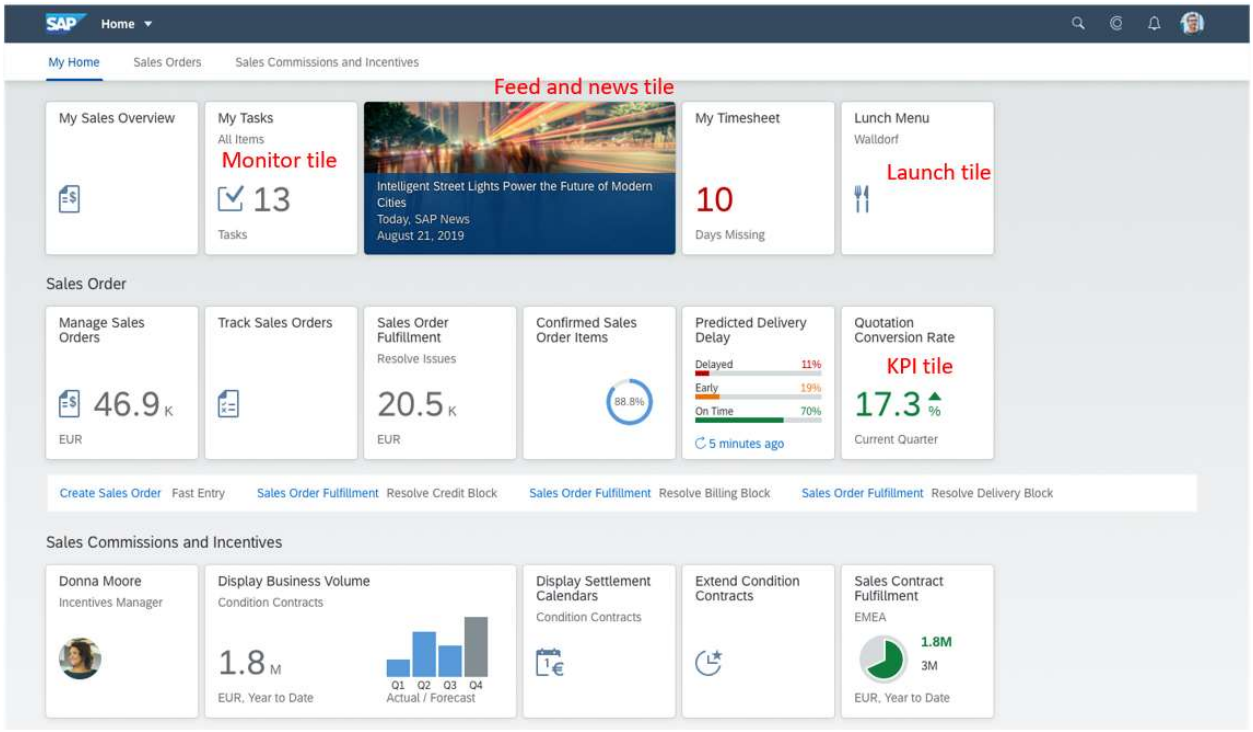
KPI tile

https://experience.sap.com/fiori-design-web-versions-1-26-and-1-28/concept/tile/.

106. The registry for Fiori also includes addresses for the web services where the input symbolic names and output symbolic names can be sent to and received from. For example, the screenshot below illustrates a Feed Tile that monitors RSS feeds and retrieves new articles based on an article refresh interval. On information and belief, the registry for Fiori includes URL addresses of the web services providing the RSS feeds, such that the Feed Tile can request new articles from the web services according to user selected topics and display updates of the last feeds in a user selected cycle through rate. On information and belief, input symbolic names are associated with user-input topics, and output symbolic names are associated with the corresponding updates of feeds and news articles provided for the user-input topics.

https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsFeedTile.

107. Fiori is configured to allow definition of a UI object corresponding to a web component for an input or output of a web service, for presentation on the display. For example, the Fiori launchpad website includes different types of tile objects, including launch tile, monitor tile, KPI tile, Feed tile, and slide tile.



https://experience.sap.com/fiori-design-web/home-page/;

API Reference: sap.m.GenericTile

Extends: Control

Application Component: CA-UI5-SC

Available Since: 1.34

Category: Tile

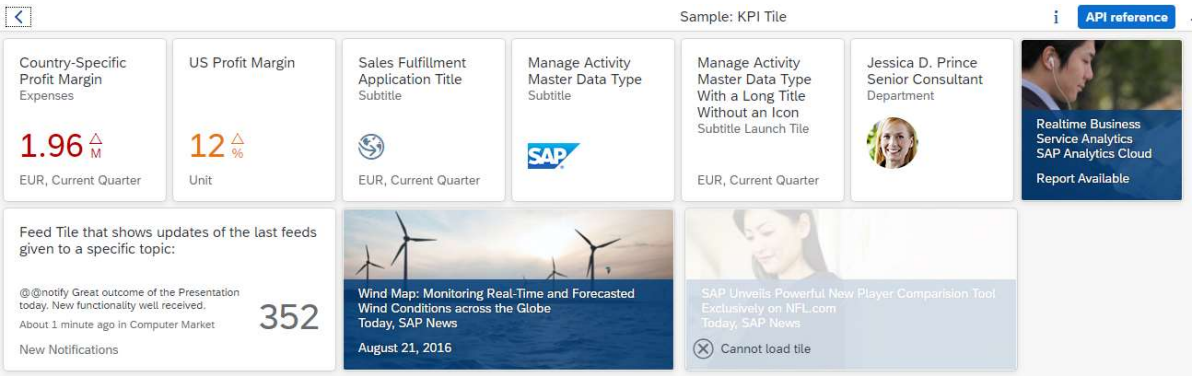
Content Density: Compact, Cozy

About Samples (7)

Name	Description
Launch Tile	Shows Launch Tile samples that can contain header, subheader, image content, unit, and a footer.
Monitor Tile	Shows Monitor Tile samples that can contain header, subheader, icon, key value, unit, and a footer.
KPI Tile	Shows KPI Tile samples that can contain header, subheader, key value, trend, scale, unit, and a footer.
Feed and News Tile	Shows Feed Tile and News Tile samples that can contain feed content, news content, and a footer.
Slide Tile	Shows Generic Tile with the 2x1 frame type displayed as sliding tiles.
Tile Modes and Scopes	Shows Generic Tile regular and in line mode, and you can switch between the display scope and actions scope for Generic Tiles on a web page.
Tile Statuses	Shows the GenericTile while it is loading, if loading fails, and in disabled status.

https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile.

108. When a UI object is defined, a symbolic name (e.g., JSON data) from the web component corresponding to the defined UI object is selected and associated with the defined UI object. Fiori then produces a device-independent application that includes the JSON data, as well as standard HTML, CSS and Javascript code. The application is executed on a device together with a device-dependent player, such as a device-dependent code for a browser engine for a specific browser, or an operating system or application for a particular kind of device. *See, e.g., Shopify Inc. v. Express Mobile, Inc.*, Case No. 1:19-cv-00439-RGA, D. Del., D.I. 137. In the example below, Fiori converts HTML, CSS, Javascript, JSON, and other files into an active Fiori launchpad website including KPI tile for display.



https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTile

AsKPITile;

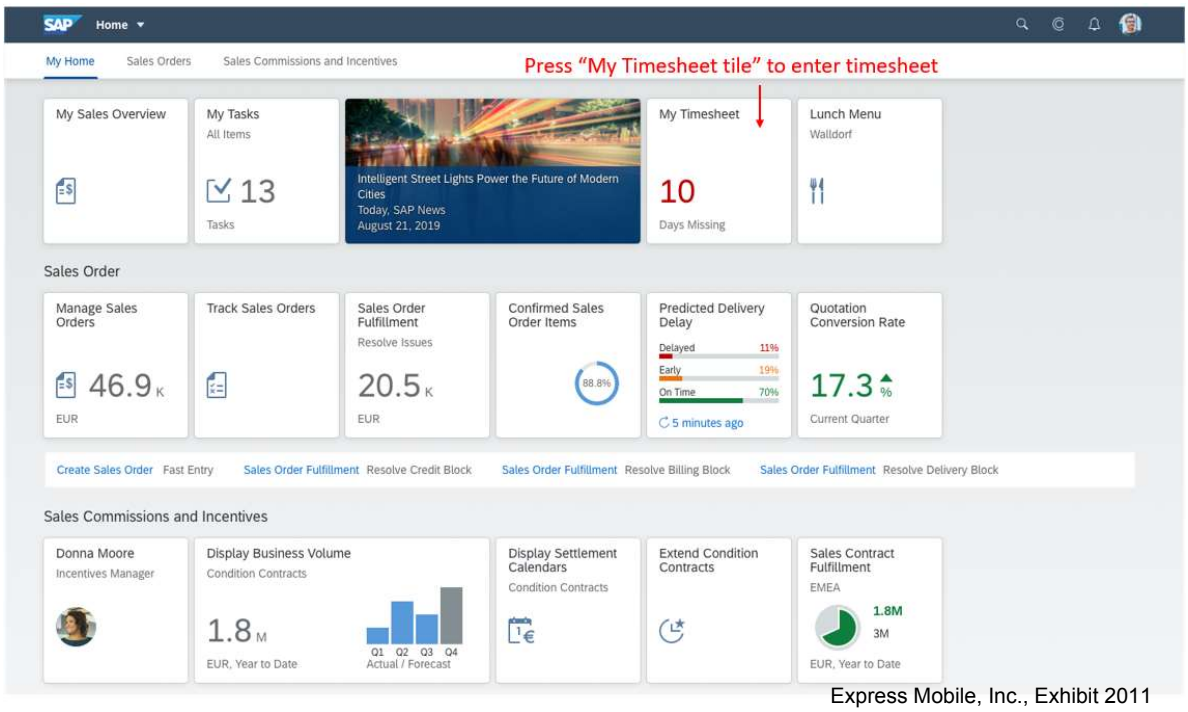
Code: KPI Tile

Page.view.xml Page.controller.js style.css manifest.json

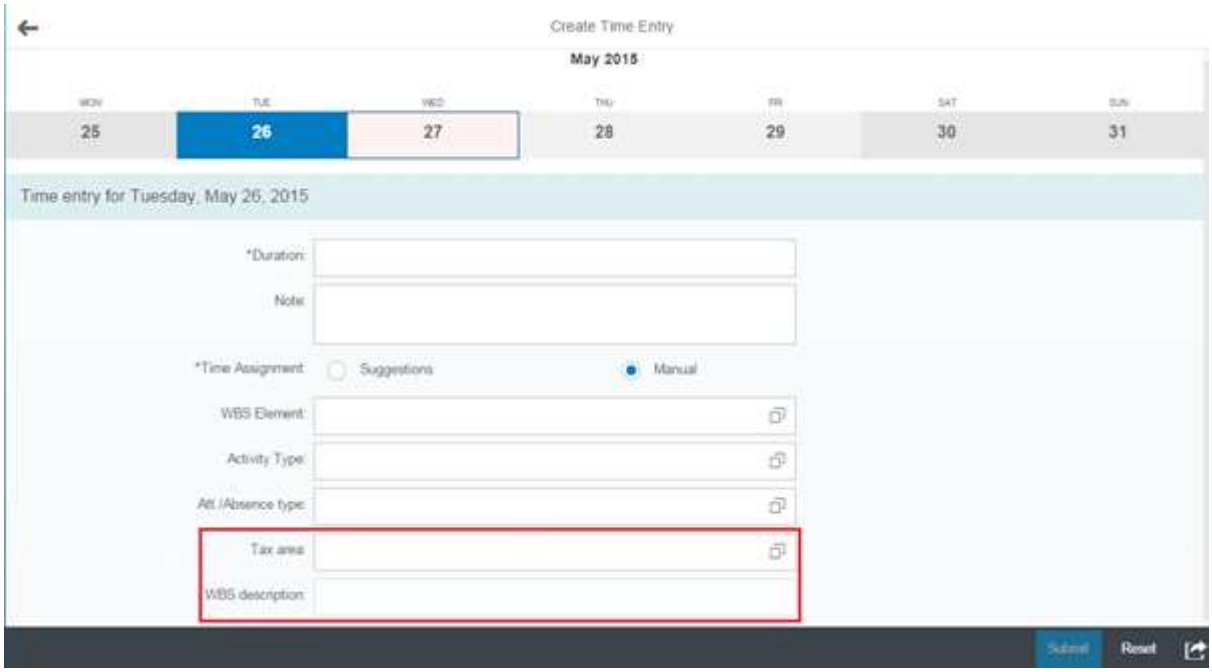
```
<mvc:View controllerName="sap.m.sample.GenericTileAsKPITile.Page" xmlns="sap.m" xmlns:mvc="sap.ui.core.mvc">
    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Country-Specific Profit Margin" subheader="Expenses" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter">
            <NumericContent scale="M" value="1.96" valueColor="Error" indicator="Up" withMargin="false" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="US Profit Margin" press="onPress">
        <TileContent unit="Unit">
            <NumericContent scale="%" value="12" valueColor="Critical" indicator="Up" withMargin="false" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Sales Fulfillment Application Title"
                subheader="Subtitle" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter">
            <ImageContent src="sap-icon://home-share" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Manage Activity Master Data Type"
                subheader="Subtitle" press="onPress">
        <TileContent>
            <ImageContent src="test-resources/sap/m/demokit/sample/GenericTileAsLaunchTile/images/SAPLogoLargeTile_28px_height.png" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Manage Activity Master Data Type With a Long Title Without an Icon"
                subheader="Subtitle Launch Tile" mode="HeaderMode" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter" />
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Jessica D. Prince Senior Consultant"
                subheader="Department" press="onPress">
        <TileContent>
            <ImageContent src="test-resources/sap/m/demokit/sample/GenericTileAsLaunchTile/images/ProfileImage_LargeGenTile.png" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop"
                backgroundImage="test-resources/sap/m/images/NewsImage1.png"
                frameType="OneByOne" press="onPress">
        <TileContent footer="Report Available" frameType="OneByOne">
            <NewsContent
                    contentText="Realtime Business Service Analytics"
                    subheader="SAP Analytics Cloud" />
        </TileContent>
    </GenericTile>
```

https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile/code.

109. When the application and player are executed on the device, an input value can be



provided by a user. The device then provides the input value and a corresponding input symbolic name to the web service, which in turn generates an output value and a corresponding symbolic name for the output. By way of example, a user can click on the "My Timesheet" tile to enter information for a timesheet by providing inputs such as text or click on a radio button object. https://experience.sap.com/fiori-design-web/home-page/;



https://pasapas-sap-support.com/content/customizing-your-fiori-timesheet-app-without-coding

110. Symbolic names associated with the text field objects and radio button object are then sent to SAP's back-end server with a simple HTTP request for an employee's timesheet web service. The timesheet web service then generates corresponding KPI values and timesheet updates and transfers them to the Fiori front-end servers in the format of JSON dataset. A player then provides instructions to the display of the device to present the output value in the Timesheet tile. For example, the KPI values and timesheet updates are rendered by SAPUI5 in the front-end and converted into an active Timesheet tile for display.

111. The presence of the above referenced features is demonstrated, by way of example, by reference to publicly available information, including the following:

- https://www.sap.com/products/fiori.html,
- https://www.sap.com/documents/2019/08/d6431654-627d-0010-87a3-c30de2ffd8ff.html,
- https://experience.sap.com/fiori/,
- https://experience.sap.com/fiori-design-web/a-beginners-guide-to-the-design-guidelines/,
- https://experience.sap.com/fiori-design-web/tile/,
- https://experience.sap.com/fiori-design-web-versions-1-26-and-1-28/concept/tile/,
- https://experience.sap.com/fiori-design-web/smart-templates/,

- https://experience.sap.com/fiori-design-web/home-page/,
- https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT,
- https://help.sap.com/doc/abapdocu_752_index_htm/7.52/en-US/abenabap_sql.htm,
- https://help.sap.com/saphelp_em92/helpdata/en/58/e82251e8242514e10000000a44176d/frameset.htm,
- https://help.sap.com/doc/saphelp_nw74/7.4.16/en-US/ec/aeea50ca692309e10000000a445394/content.htm?no_cache=true,
- https://sapui5.hana.ondemand.com/,
- https://sapui5.hana.ondemand.com/#/topic/99ac68a5b1c3416ab5c84c99fefa250d,
- https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile,
- https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile/code,
- https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile,
- https://blogs.sap.com/2020/04/23/sap-ui5-vs-sap-fiori-elements-fe/,
- https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/,
- https://blogs.sap.com/2019/07/30/fiori-elements-is-for-designers-and-product-managers-not-just-developers/,
- https://www.youtube.com/watch?v=TCPuASmu1Js,
- https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9,
- https://www.youtube.com/watch?v=S1LBoU17vcM&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=7,
- https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo,
- https://pasapas-sap-support.com/content/customizing-your-fiori-timesheet-app-without-coding,

- https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm, and
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries.

112. On information and belief, Defendants have had knowledge of the '755 patent and their infringement thereof at least as early as July 28, 2019, and no later than November 30, 2020, when Plaintiff provided notice of the '755 patent and Defendants' infringement of the '755 patent. Furthermore, Defendants have been aware of the '755 patent and their infringement thereof since at least the filing of this complaint.

113. On information and belief, Defendants have contributed and are contributing to the infringement of the '755 patent because Defendants know that the infringing aspects of the infringing products and services, including but not limited to the Accused Instrumentalities, are made for use in an infringement, and are not staple articles of commerce suitable for substantial non-infringing uses.

114. On information and belief, Defendants have induced and are inducing the infringement of the '755 patent, with knowledge of the '755 patent and that their acts, including without limitation using, offering to sell, selling within, and importing into the United States, the Accused Instrumentalities, would aid and abet and induce infringement by customers, clients, partners, developers, and end users of the foregoing.

115. In particular, Defendants' actions that aid and abet others such as customers, clients, partners, developers, and end users to infringe include advertising and distributing the Accused Instrumentalities, and providing instructional materials, training, and other services regarding the Accused Instrumentalities. Defendants actively encourage the adoption of the Accused Instrumentalities and provide support sites for the vast network of developers working with the Accused Instrumentalities, emphasizing the user-friendly nature and diverse capabilities provided by the Accused Instrumentalities, explaining that Fiori "has redefined the way enterprise users work. With a new visual design and appearance, we are making work more delightful and are ready for the next-generation workforce," and "equips designers and developers with a set of tools and guidelines to create apps for any platform faster than ever – providing a consistent, innovative

Express Mobile, Inc., Exhibit 2011
Page 2011 - 56
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

experience for both creators and users." (*See, e.g.*, https://www.sap.com/products/fiori.html.) On information and belief, Defendants have engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendants have had actual knowledge of the '755 patent and knowledge that their acts were inducing infringement of the '755 patent since at least the date Defendants received notice that their activities infringed the '755 patent.

116. Defendants' acts of infringement have caused damage to Plaintiff, and Plaintiff is entitled to recover damages from Defendants in an amount subject to proof at trial.

117. Defendants' infringement of Plaintiff's rights under the '755 patent will continue to damage Plaintiff's business, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

118. On information and belief, Defendants have acted with disregard of Plaintiff's patent rights, without any reasonable basis for doing so, and have willfully infringed and do willfully infringe the '755 patent.

119. The foregoing is illustrative of Defendants' infringement of the '755 patent. Plaintiff reserves the right to identify additional claims and Accused Instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 9,471,287

120. Plaintiff incorporates by reference paragraphs 1 to 53 above as if fully set forth herein.

121. On information and belief, Defendants have infringed and are infringing the '287 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

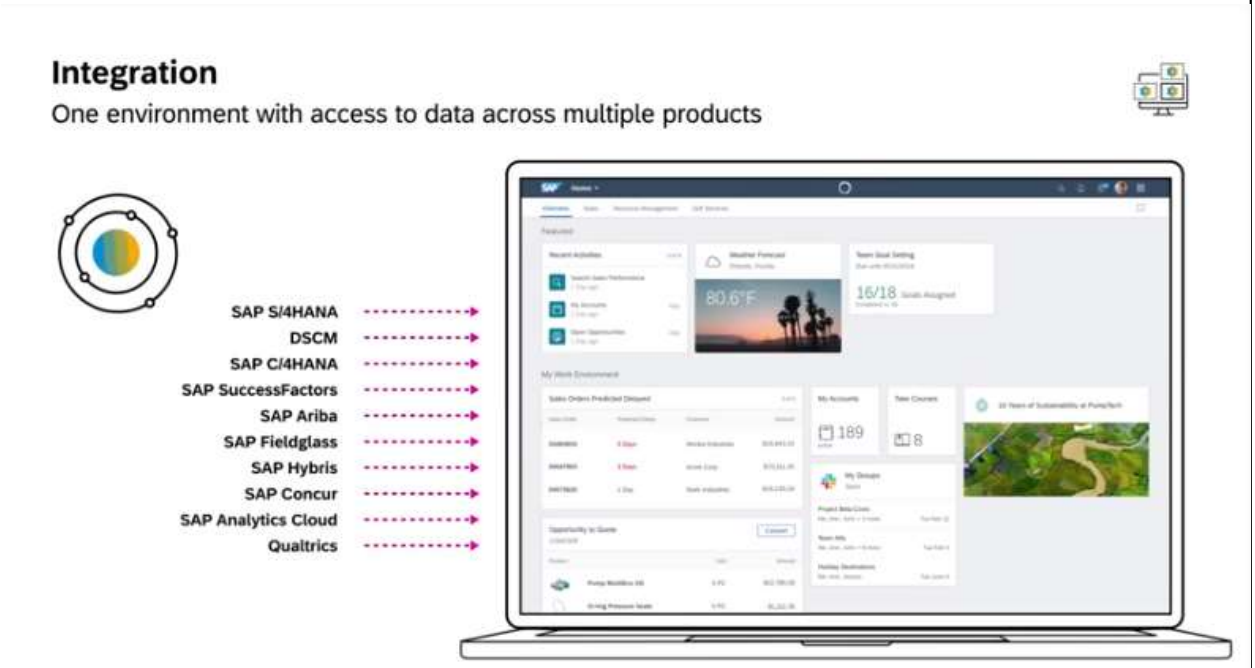
122. On information and belief, Defendants have infringed and are infringing the '287 patent by performing, without authority, one or more of the following acts: making, using, offering to sell, selling within, and importing into, the United States products and services that practice the claimed inventions of the '287 patent, including but not limited to Fiori.

123. Defendants infringe at least claim 15 of the '287 patent through a combination of

Express Mobile, Inc., Exhibit 2011
Page 2011 - 57
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

features in Fiori that collectively practice each claimed limitation of claim 15. By way of example, Fiori provides a platform for business customers to create and customize websites, such as the Fiori "launchpad," to manage their businesses. Through Fiori websites, business customers can access various SAP enterprise software products, such as S/4HANA, C/4HANA, SAP Ariba and SAP Concur.

https://www.sap.com/products/fiori.html;



https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo;

Design with SAP Fiori

Use the UI resources of our award-winning user experience for designing great enterprise software. We are constantly evolving it to make sure your users keep getting the best enterprise UX in the industry.

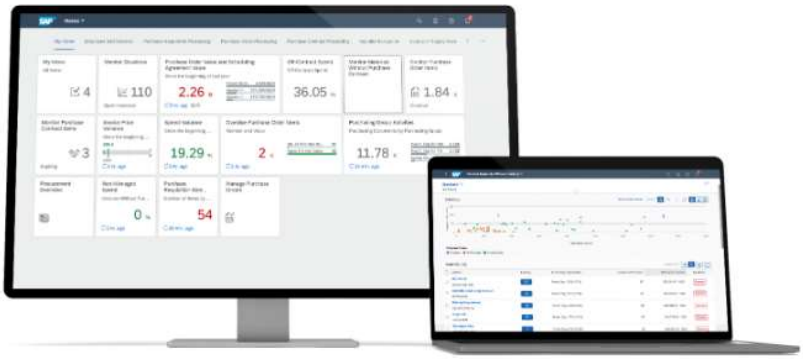
Design with SAP Fiori

https://www.sap.com/products/fiori.html;

Develop with SAP Fiori

Build apps for your organization that are simple, preconfigured, and UI technology-independent. There are many ways to make use of the SAP Fiori design for your own projects.

Develop with SAP Fiori



https://www.sap.com/products/fiori.html.

124. Fiori displays content through a device that has a device-dependent player, such as a device-dependent code for a browser engine for a specific browser, or an operating system or application for a particular kind of device. *See, e.g., Shopify Inc. v. Express Mobile, Inc.*, Case No. 1:19-cv-00439-RGA, D. Del., D.I. 137. For example, the SAPUI5 user development toolkit that supports Fiori displays content through modern browsers such as Google Chrome, Safari, Internet Explorer, Mozilla Firefox, and Microsoft Edge.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 59
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

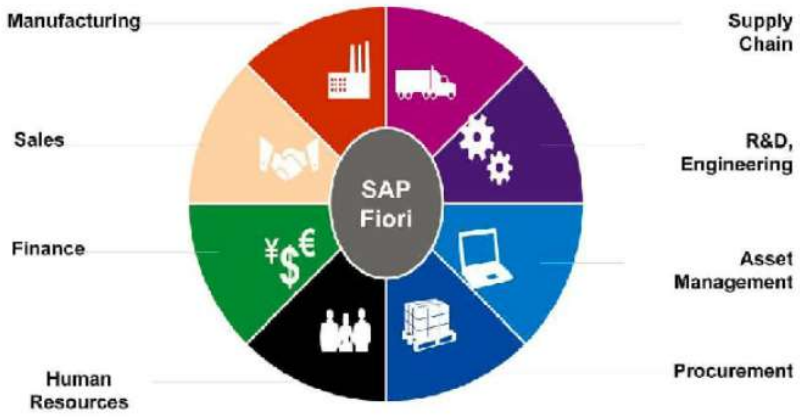
Platform	Device Category	Platform Version	Safari	Web View	Internet Explorer	Microsoft Edge (Chromium)	Microsoft Edge (EdgeHTML)[1]	Google Chrome	Mozilla Firefox
Windows	Desktop	Windows 8.1	-	-	Version 11[3]	-		Latest version	Latest version and Extended Support Release (ESR)[2, 6]
		Windows 10	-	Latest version		Latest 2 versions			
	Touch[4, 5]	Windows 10	-	Latest version	Version 11[3]	Latest 2 versions[6]		Latest version[6]	Latest version and Extended Support Release (ESR)[6]
macOS	Desktop	Latest 2 versions	Latest 2 versions	-	-	-		Latest version[4]	-
iOS	Phone and Tablet[4, 5]	Latest 2 versions	Latest 2 versions	Latest version[6]	-	-		-	-

https://help.sap.com/viewer/468a97775123488ab3345a0c48cadd8f/7.51.9/en-US/74b59efa0eef48988d3b716bd0ecc933.html.

125. Fiori defines a UI object for presentation on the display, where the UI object corresponds to a web component included in a registry of one or more web components selected from an input of a web service and an output of a web service. Web services on Fiori include various role-based applications that may be integrated on the Fiori launchpad through "tiles." These applications provide business management and operation web services to business customers, such as those relating to manufacturing, sales, finance, and human resources.

SAP Fiori is a new user experience (UX) for SAP software and applications. It provides a set of applications that are used in regular business functions like work approvals, financial apps, calculation apps and various self-service apps.

SAP Fiori provides 300+ role-based applications like HR, Manufacturing, finance, etc. When you open the SAP Fiori home page application, you will see a picture of the flowers. It is because Fiori means 'flowers' in Italian.



https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm;

Intro

A tile is a container that represents an app on the SAP Fiori launchpad home page.

Tiles can display different types of content, which is based on data supplied by the app. They can contain an icon, a title, an informative text, KPIs, counters, and charts.

A **link** is a special representation of a tile. Links are displayed in a separate area below the tiles area and comprise a title and an optional subtitle. Most tile types can be converted to links, and links can be converted to tiles at any time.

Users can personalize their home page by selecting the tiles for the apps they want to use from the app finder. The apps available in the app finder depend on the user's role.

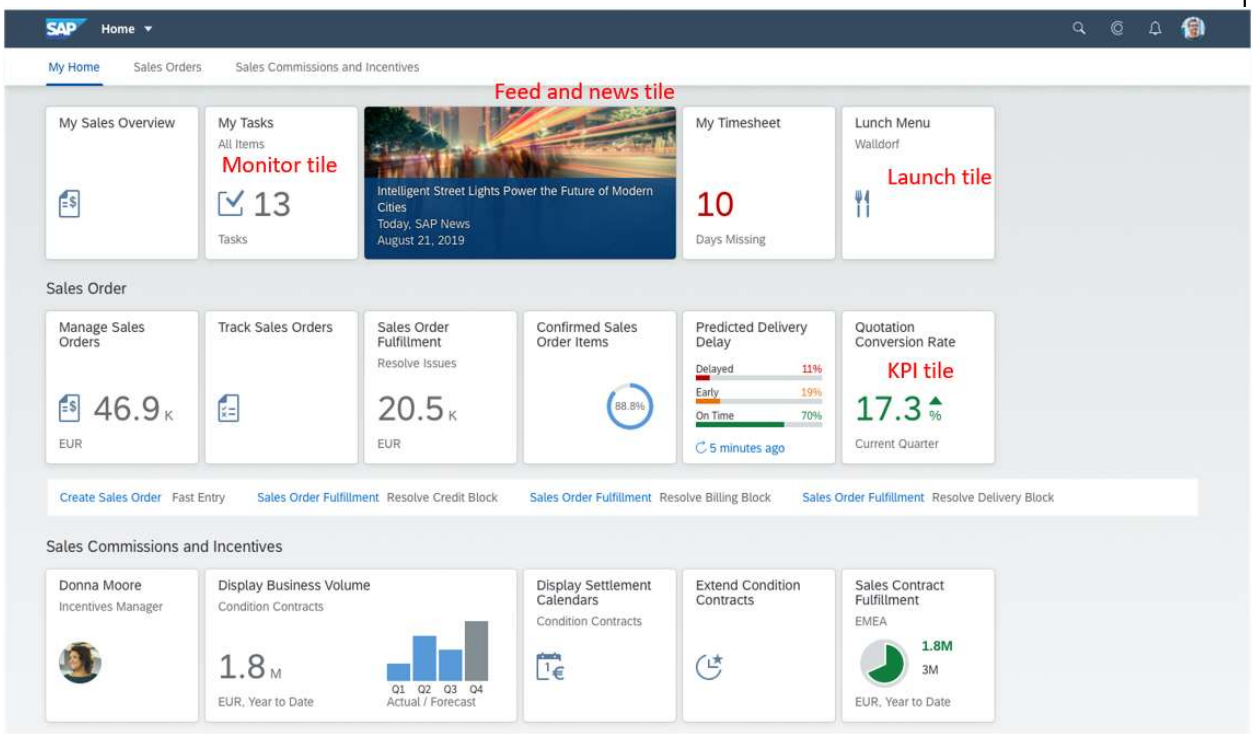
The number of visible tiles on the launchpad home page depends on the screen resolution. If the tiles in a group do not fit in one row, they are wrapped to the next row.

https://experience.sap.com/fiori-design-web/tile/.

126. By way of example, a Fiori launchpad can integrate different types of tile objects, including a launch tile, monitor tile, KPI tile, Feed tile, and slide tile. Each tile object is associated with one or more web services, which can accept input data from a user and generate and display

Express Mobile, Inc., Exhibit 2011
Page 2011 - 61
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

corresponding output data provided by the web services. https://experience.sap.com/fiori-design-web/home-page/.



127. In order to store and transmit data for the Fiori applications, Fiori utilizes JSON data to evoke web components for the Fiori applications and to communicate inputs and outputs for the applications. JSON data comprise key/value pairs that are essentially character strings (i.e., symbolic names) with no persistent address or pointer. On information and belief, a Fiori "launchpad" website can include a dynamic tile application to display real-time KPI values as large, easy-to-recognize digits. Real-time KPI values and other contents can be retrieved from SAP's back-end database in the form of JSON dataset.

SAP UI5 is a Java script based framework that is used to design multi-platform business applications. It supports various data models and views do desktop and mobile applications. SAP UI5 compiles on open Ajax and can be combined with java script libraries.

SAP UI5 was initially named phoenix that was later changed to **SAP UI5** in 2011.

Key UI Technologies

- Web Dynpro ABAP and Floorplan manager tool can be used for creating new applications.
- SAP UI5 and UI5 application development tools to change adapt or develop new applications.
- SAP Dynpro is used to include Screen Personas for GUI optimization

https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries.;

Model-View-Controller Concept

MVC consists of three concepts. Views can be defined using different languages like Java Scripts, HTML. Controller is used to bound the Views and Models are used with Views.

Views – It can be defined using XML with HTM, mixed or standalone

- **XML** – (sap.ui.core.mvc.xmlview)
- **JavaScript** – (sap.ui.core.mvc.JSView)
- **JSON** – (sap.ui.core.mvc.JSONView)
- **HTML** – (sap.ui.core.mvc.HTMLView)

Controller – Controllers are bound to a view. It can also be used with multiple views

Model – Data binding can be used on the views.

https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries.;

KPI Tile

Key performance indicators (KPIs) are used to measure and monitor a company's performance at a strategic and operational level.

The tile displays the KPI values as large, easy-to-recognize digits. In addition, you can show deviation arrows, negative values, and scaling factors. You can also use semantic colors to emphasize the content. The number of digits is limited by the size of the tiles.

You can use the 2×1 tile to combine the content of two tiles into one. For example, you can show a KPI next to a comparison chart (as shown on the right), or use any other combination such as KPI/KPI, chart/chart, and so on. You can show different information in both the content and status areas. However, in all other respects, the 2×1 tile behaves as one tile – with one headline, subtitle, clickable area, and target.

KPI tile

https://experience.sap.com/fiori-design-web-versions-1-26-and-1-28/concept/tile/.

128. Fiori's web components and symbolic names (e.g., JSON data) described above, are stored in an AS ABAP database that supports the Fiori launchpad's front-end server, which operates on the SAPUI5 User Interface (UX) development toolkit.

What is FES?

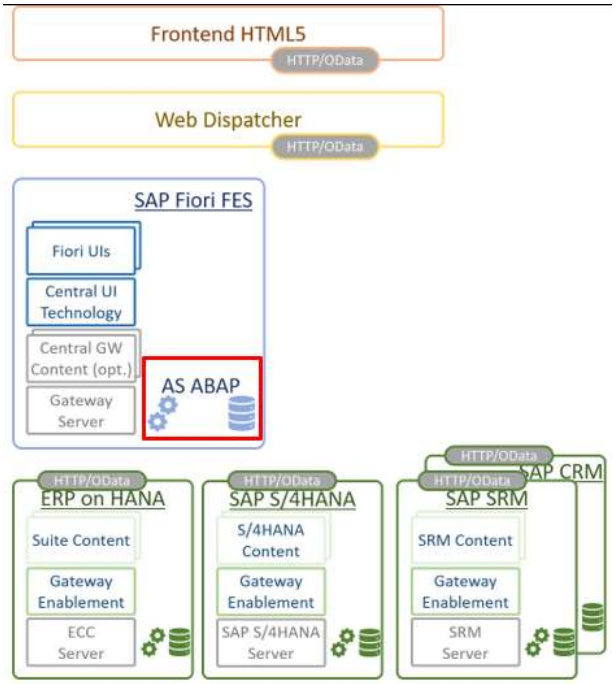
SAP Fiori front-end server (FES) offers a bundle of technology components that are required to run SAP Fiori scenarios. It contains the following:

- UI development toolkit for HTML5 (SAPUI5) framework and the components to run the SAP Fiori launchpad on the ABAP stack.
- SAP Gateway core components on the ABAP stack.
- SAP Fiori Implementation Foundation.
- SAP Fiori Basis Apps (available only with SAP NetWeaver 7.5 or higher).

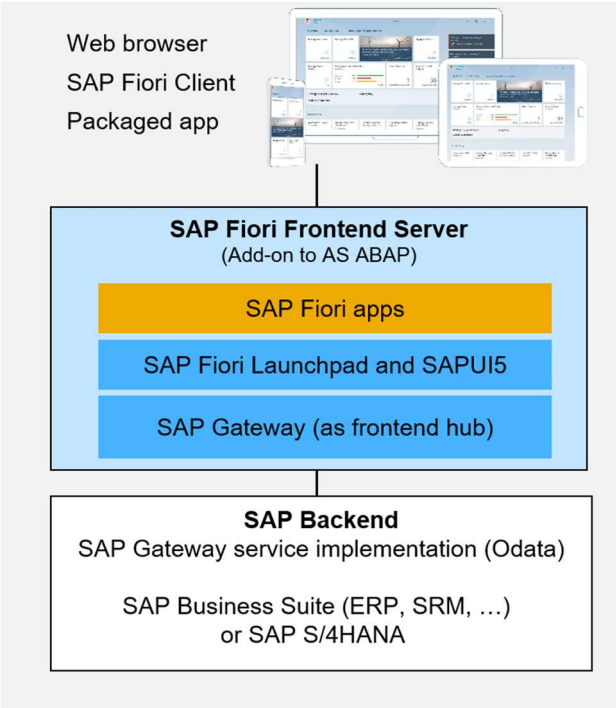
SAP Fiori FES does not provide any new technical components. It has been created to define the exact stacks required for SAP Fiori application versions and thereby simplify customer consumption.

https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT;

Express Mobile, Inc., Exhibit 2011
Page 2011 - 64
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

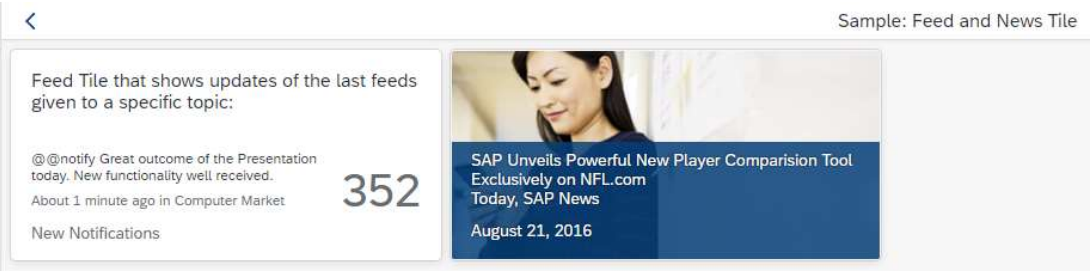


https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT;



https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/.

129. The registry for Fiori also includes addresses for the web services where the input symbolic names and output symbolic names can be sent to and received from. For example, the screenshot below shows a Feed Tile that monitors RSS feeds and retrieves new articles based on an article refresh interval. On information and belief, the registry for Fiori includes URL addresses of the web services providing the RSS feeds, such that the Feed Tile can request new articles from the web services according to user selected topics and display updates of the last feeds in a user selected cycle through rate. On information and belief, input symbolic names are associated with user-input topics, and output symbolic names are associated with the corresponding updates of feeds and news articles provided for the user-input topics.



https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsFeedTile

130. The defined UI objects described above are either selected by a user of an authoring tool or automatically selected by Fiori as preferred UI objects. For example, in the Fiori launchpad website, tile objects are automatically clustered in groups that are listed in an anchor bar at the top of the website, the anchor bar being the preferred UI object. Alternatively, a user can choose to list the groups of tiles separately in different tab bars.

Anchor Bar and Tab Bar

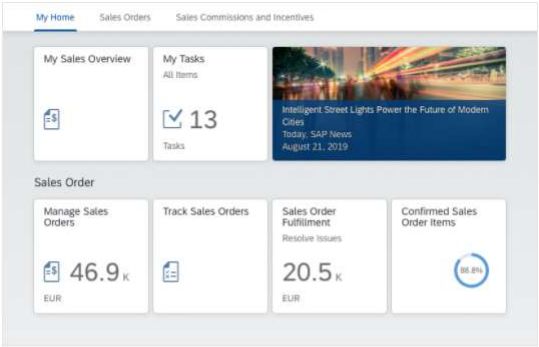
In the launchpad home page, tiles are usually clustered in groups. These groups are listed in an anchor bar or in a tab bar at the top of the page.

The anchor bar is the default setting. Optionally, users can choose the tab bar instead. Note: Both types are only shown when users have more than one group.

If you want to modify groups and tiles, select *Edit Home Page* from the user menu.

Anchor Bar

By default, all groups are displayed in the launchpad home page. These groups are listed in the anchor bar at the top of the page. When users select a group name, the page scrolls down to the selected group.

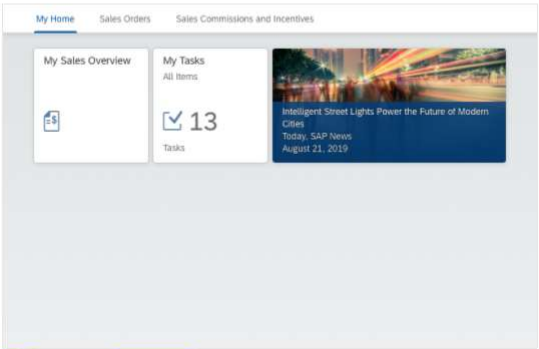


Launchpad home page with anchor bar - All groups at a glance

Tab Bar

When the tab bar is selected, the groups are separated into tabs. Only one group is displayed at a time.

While this functionality reduces the overview of all groups, it allows the user to focus on a selection of tiles and improves the performance for users with a large number groups.



Launchpad home page with tab bar - First group selected

https://experience.sap.com/fiori-design-web/home-page/.

131. When a UI object is so defined, a symbolic name (e.g., JSON data) from the web component corresponding to the defined UI object is selected and associated with the defined UI object. The symbolic name has an associated data format class type corresponding to a subclass of UI objects that support the data format type of the symbolic name, and has the preferred UI object. For example, in a Fiori launchpad website, tile objects are automatically clustered in groups that are listed in an anchor bar at the top of the website, the anchor bar being the preferred UI object. Alternatively, a user can list the groups of tiles separately in different tab bars.

Anchor Bar and Tab Bar

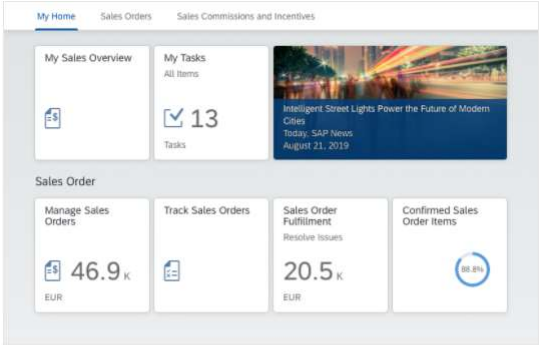
In the launchpad home page, tiles are usually clustered in groups. These groups are listed in an anchor bar or in a tab bar at the top of the page.

The anchor bar is the default setting. Optionally, users can choose the tab bar instead. Note: Both types are only shown when users have more than one group.

If you want to modify groups and tiles, select *Edit Home Page* from the user menu.

Anchor Bar

By default, all groups are displayed in the launchpad home page. These groups are listed in the anchor bar at the top of the page. When users select a group name, the page scrolls down to the selected group.

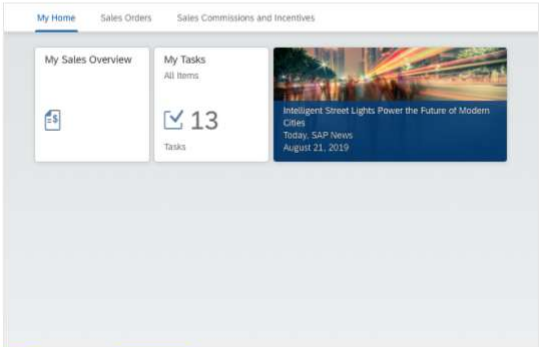


Launchpad home page with anchor bar - All groups at a glance

Tab Bar

When the tab bar is selected, the groups are separated into tabs. Only one group is displayed at a time.

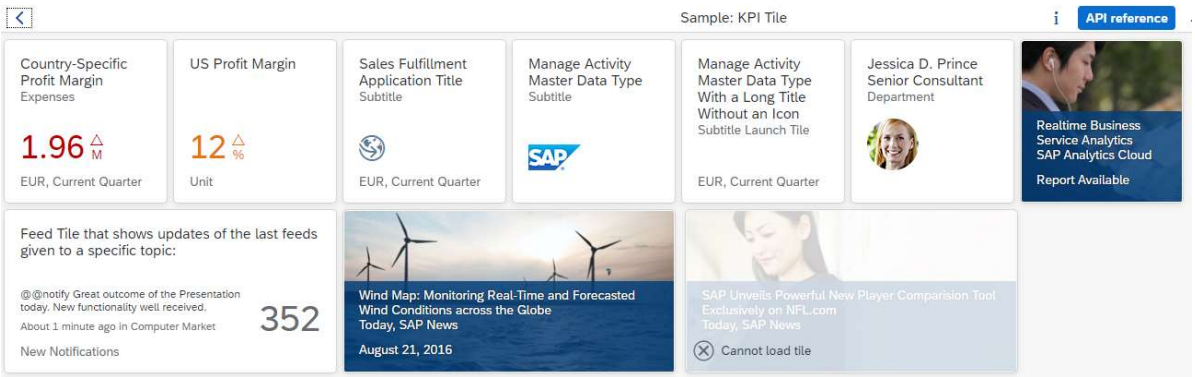
While this functionality reduces the overview of all groups, it allows the user to focus on a selection of tiles and improves the performance for users with a large number groups.



Launchpad home page with tab bar - First group selected

https://experience.sap.com/fiori-design-web/home-page/.

132. Fiori then produces a device-independent application that includes the JSON data, as well as standard HTML, CSS and Javascript code. The application is executed on a device together with a device-dependent player, such as a device-dependent code for a browser engine for a specific browser, or an operating system or application for a particular kind of device. *See, e.g., Shopify Inc. v. Express Mobile, Inc.*, Case No. 1:19-cv-00439-RGA, D. Del., D.I. 137. In the example below, Fiori converts HTML, CSS, Javascript, JSON, and other files into an active Fiori launchpad website including the KPI tile for display.



https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile;

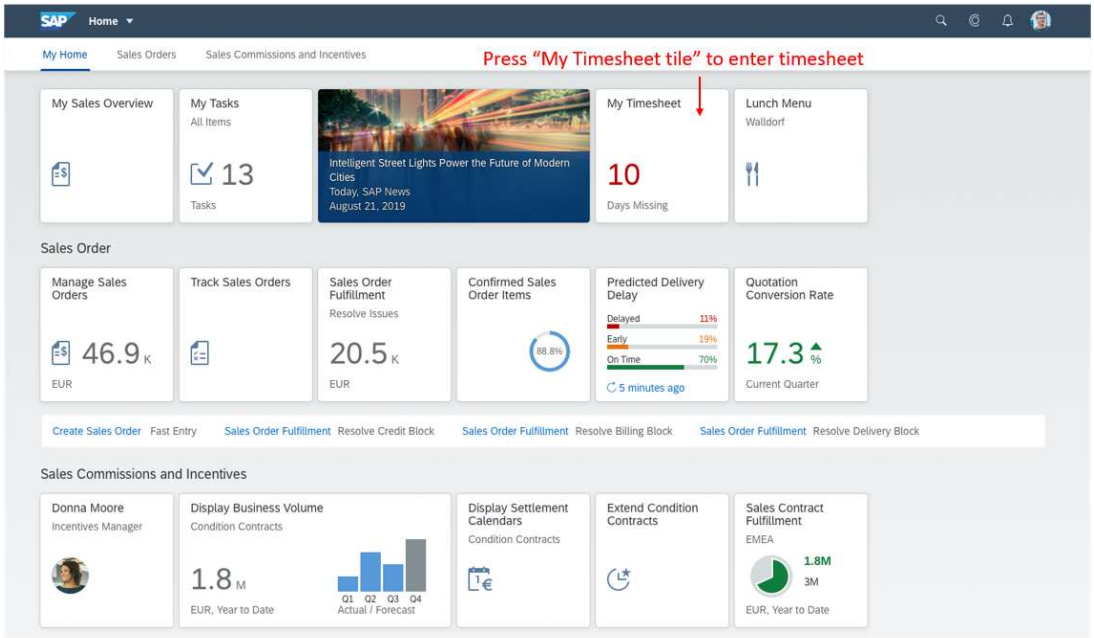
Code: KPI Tile

Page.view.xml Page.controller.js style.css manifest.json

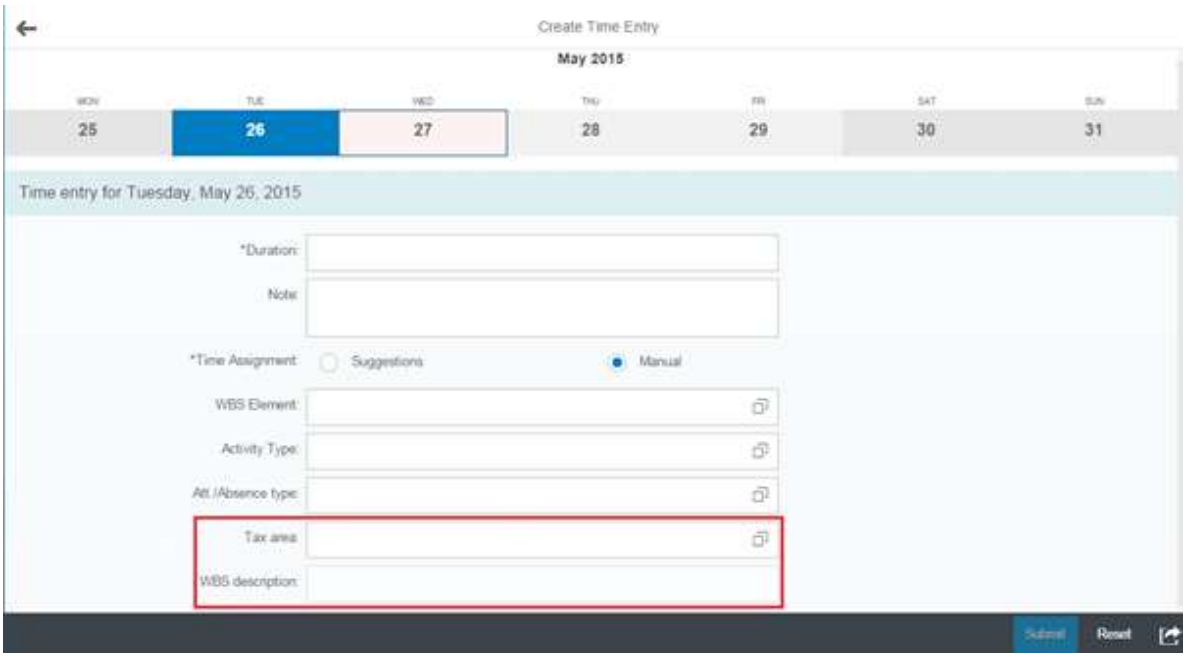
```
<mvc:View controllerName="sap.m.sample.GenericTileAsKPITile.Page" xmlns="sap.m" xmlns:mvc="sap.ui.core.mvc">
    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Country-Specific Profit Margin" subheader="Expenses" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter">
            <NumericContent scale="M" value="1.96" valueColor="Error" indicator="Up" withMargin="false" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="US Profit Margin" press="onPress">
        <TileContent unit="Unit">
            <NumericContent scale="%" value="12" valueColor="Critical" indicator="Up" withMargin="false" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Sales Fulfillment Application Title"
                 subheader="Subtitle" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter">
            <ImageContent src="sap-icon://home-share" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Manage Activity Master Data Type"
                 subheader="Subtitle" press="onPress">
        <TileContent>
            <ImageContent src="test-resources/sap/m/demokit/sample/GenericTileAsLaunchTile/images/SAPLogoLargeTile_28px_height.png" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Manage Activity Master Data Type With a Long Title Without an Icon"
                 subheader="Subtitle Launch Tile" mode="HeaderMode" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter" />
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Jessica D. Prince Senior Consultant"
                 subheader="Department" press="onPress">
        <TileContent>
            <ImageContent src="test-resources/sap/m/demokit/sample/GenericTileAsLaunchTile/images/ProfileImage_LargeGenTile.png" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop"
                 backgroundImage="test-resources/sap/m/images/NewsImage1.png"
                 frameType="OneByOne" press="onPress">
        <TileContent footer="Report Available" frameType="OneByOne">
            <NewsContent
                    contentText="Realtime Business Service Analytics"
                    subheader="SAP Analytics Cloud" />
        </TileContent>
    </GenericTile>
```

https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile/code.

133. When the application and player are executed on the device, an input value can be provided by a user. The device then provides the input value and a corresponding input symbolic name to the web service, which in turn generates an output value and a corresponding symbolic name for the output. By way of example, a user can click on the "My Timesheet" tile to enter information for a timesheet by providing inputs such as text or click on a radio button object.



https://experience.sap.com/fiori-design-web/home-page/;



https://pasapas-sap-support.com/content/customizing-your-fiori-timesheet-app-without-coding.

134. Symbolic names associated with the text field objects and radio button object are sent to SAP's back-end server with a simple HTTP request for an employee's timesheet web service. The timesheet web service then generates corresponding KPI values and timesheet updates and transfers them to the Fiori front-end servers in the format of JSON dataset. A player

then provides instructions to the display of the device to present the output value in the Timesheet tile. For example, the KPI values and timesheet updates are rendered by SAPUI5 in the front-end and converted into an active Timesheet tile for display.

135. The presence of the above referenced features is demonstrated, by way of example, by reference to publicly available information, including the following:

- https://www.sap.com/products/fiori.html,
- https://www.sap.com/documents/2019/08/d6431654-627d-0010-87a3-c30de2ffd8ff.html,
- https://experience.sap.com/fiori/,
- https://experience.sap.com/fiori-design-web/home-page/,
- https://experience.sap.com/fiori-design-web/a-beginners-guide-to-the-design-guidelines/,
- https://experience.sap.com/fiori-design-web/tile/,
- https://experience.sap.com/fiori-design-web-versions-1-26-and-1-28/concept/tile/,
- https://experience.sap.com/fiori-design-web/smart-templates/,
- https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT,
- https://help.sap.com/doc/abapdocu_752_index_htm/7.52/en-US/abenabap_sql.htm,
- https://help.sap.com/saphelp_em92/helpdata/en/58/e82251e8242514e10000000a44176d/frameset.htm,
- https://help.sap.com/doc/saphelp_nw74/7.4.16/en-US/ec/aeea50ca692309e10000000a445394/content.htm?no_cache=true,
- https://sapui5.hana.ondemand.com/,
- https://sapui5.hana.ondemand.com/#/topic/99ac68a5b1c3416ab5c84c99fefa250d,
- https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile/code,
- https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsFeedTile,
- https://blogs.sap.com/2020/04/23/sap-ui5-vs-sap-fiori-elements-fe/,
- https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/,

Express Mobile, Inc., Exhibit 2011
Page 2011 - 71
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

- https://blogs.sap.com/2019/07/30/fiori-elements-is-for-designers-and-product-managers-not-just-developers/,
- https://www.youtube.com/watch?v=TCPuASmu1Js,
- https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9,
- https://www.youtube.com/watch?v=S1LBoU17vcM&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=7,
- https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo,
- https://pasapas-sap-support.com/content/customizing-your-fiori-timesheet-app-without-coding,
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm, and
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries.

136. On information and belief, Defendants have had knowledge of the '287 patent and their infringement thereof at least as early as July 28, 2019, and no later than November 30, 2020, when Plaintiff provided notice of the '287 patent and Defendants' infringement of the '287 patent. Furthermore, Defendants have been aware of the '287 patent and their infringement thereof since at least the filing of this complaint.

137. On information and belief, Defendants have contributed and are contributing to the infringement of the '287 patent because Defendants know that the infringing aspects of the infringing products and services, including but not limited to the Accused Instrumentalities, are made for use in an infringement, and are not staple articles of commerce suitable for substantial non-infringing uses.

138. On information and belief, Defendants have induced and are inducing the infringement of the '287 patent, with knowledge of the '287 patent and that their acts, including without limitation using, offering to sell, selling within, and importing into the United States, the Accused Instrumentalities, would aid and abet and induce infringement by customers, clients,

Express Mobile, Inc., Exhibit 2011
Page 2011 - 72
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

partners, developers, and end users of the foregoing.

139. In particular, Defendants' actions that aid and abet others such as customers, clients, partners, developers, and end users to infringe include advertising and distributing the Accused Instrumentalities, and providing instructional materials, training, and other services regarding the Accused Instrumentalities. Defendants actively encourage the adoption of the Accused Instrumentalities and provide support sites for the vast network of developers working with the Accused Instrumentalities, emphasizing the user-friendly nature and diverse capabilities provided by the Accused Instrumentalities, explaining that Fiori "has redefined the way enterprise users work. With a new visual design and appearance, we are making work more delightful and are ready for the next-generation workforce," and "equips designers and developers with a set of tools and guidelines to create apps for any platform faster than ever – providing a consistent, innovative experience for both creators and users." (*See, e.g.*, https://www.sap.com/products/fiori.html.) On information and belief, Defendants have engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendants have had actual knowledge of the '287 patent and knowledge that their acts were inducing infringement of the '287 patent since at least the date Defendants received notice that their activities infringed the '287 patent.

140. Defendants' acts of infringement have caused damage to Plaintiff, and Plaintiff is entitled to recover damages from Defendants in an amount subject to proof at trial.

141. Defendants' infringement of Plaintiff's rights under the '287 patent will continue to damage Plaintiff's business, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

142. On information and belief, Defendants have acted with disregard of Plaintiff's patent rights, without any reasonable basis for doing so, and have willfully infringed and do willfully infringe the '287 patent.

143. The foregoing is illustrative of Defendants' infringement of the '287 patent. Plaintiff reserves the right to identify additional claims and Accused Instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 73
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

COUNT V – INFRINGEMENT OF U.S. PATENT NO. 9,928,044

144. Plaintiff incorporates by reference paragraphs 1 to 53 above as if fully set forth herein.

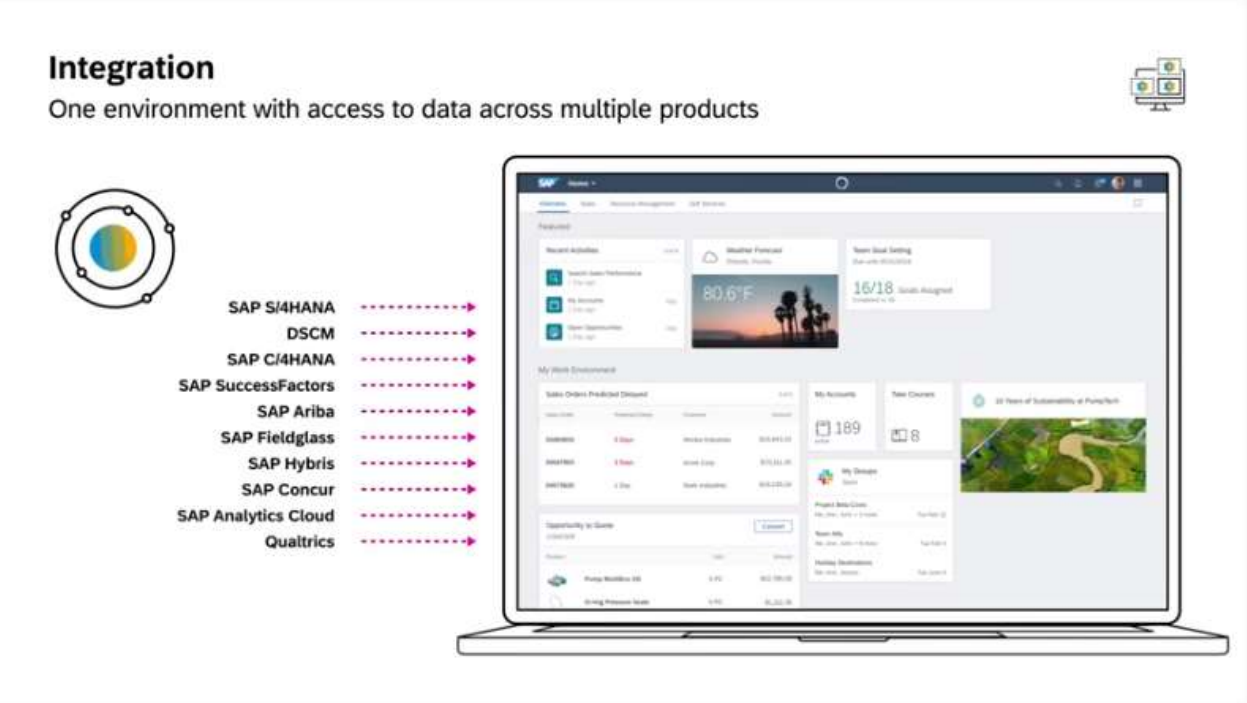
145. On information and belief, Defendants have infringed and are infringing the '044 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

146. On information and belief, Defendants have infringed and are infringing the '044 patent by performing, without authority, one or more of the following acts: making, using, offering to sell, selling within, and importing into, the United States products and services that practice the claimed inventions of the '044 patent, including but not limited to Fiori.

147. Defendants infringe at least claim 1 of the '168 patent through a combination of features in Fiori that collectively practice each limitation of claim 1. By way of example, Fiori provides a platform for business customers to create and customize websites, such as the Fiori "launchpad," to manage their businesses. Through Fiori websites, business customers can access various SAP enterprise software products, such as S/4HANA, C/4HANA, SAP Ariba and SAP Concur.

https://www.sap.com/products/fiori.html;

Express Mobile, Inc., Exhibit 2011
Page 2011 - 74
IPR2022-00597, Google LLC. v. Express Mobile, Inc.



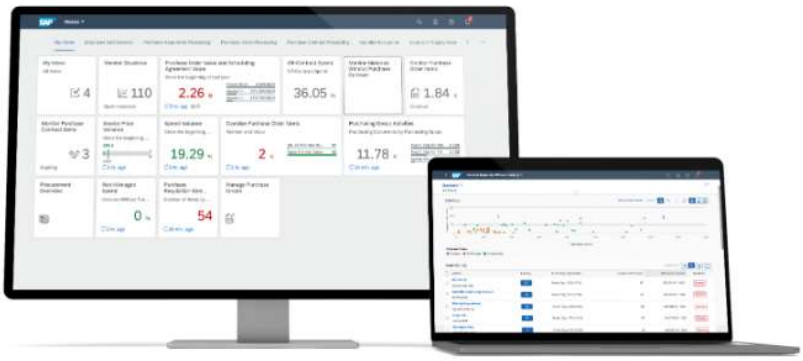
https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo;

https://www.sap.com/products/fiori.html;

Develop with SAP Fiori

Build apps for your organization that are simple, preconfigured, and UI technology-independent. There are many ways to make use of the SAP Fiori design for your own projects.

Develop with SAP Fiori



https://www.sap.com/products/fiori.html.

148. Fiori provides a platform for displaying content on a display of a device having a player, such as a device-dependent code for a browser engine for a specific browser, or an operating system or application for a particular kind of device. *See, e.g., Shopify Inc. v. Express Mobile, Inc.*, Case No. 1:19-cv-00439-RGA, D. Del., D.I. 137. For example, the SAPUI5 development toolkit that supports Fiori displays content through modern browsers such as Google Chrome, Safari, Internet Explorer, Mozilla Firefox, and Microsoft Edge.

Platform	Device Category	Platform Version	Safari	Web View	Internet Explorer	Microsoft Edge (Chromium)	Microsoft Edge (EdgeHTML)[1]	Google Chrome	Mozilla Firefox
Windows	Desktop	Windows 8.1	-	-	Version 11[3]	-		Latest version	Latest version and Extended Support Release (ESR)[2, 6]
		Windows 10	-	Latest version		Latest 2 versions			
	Touch[4, 5]	Windows 10	-	Latest version	Version 11[3]	Latest 2 versions[6]		Latest version[6]	Latest version and Extended Support Release (ESR)[6]
macOS	Desktop	Latest 2 versions	Latest 2 versions	-	-	-		Latest version[4]	-
iOS	Phone and Tablet[4, 5]	Latest 2 versions	Latest 2 versions	Latest version[6]	-	-		-	-

https://help.sap.com/viewer/468a97775123488ab3345a0c48cadd8f/7.51.9/en-US/74b59efa0eef48988d3b716bd0ecc933.html.

149. On information and belief, Fiori includes a non-volatile memory for storing symbolic names required for evoking one or more web components each related to a set of inputs

Express Mobile, Inc., Exhibit 2011
Page 2011 - 76
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

and outputs of a web service obtainable over a network. In particular, Fiori is supported by an AS ABAP database that uses a non-volatile computer memory to store data for the Fiori launchpad website, including symbolic names for evoking inputs and outputs of web services. https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-

What is FES?

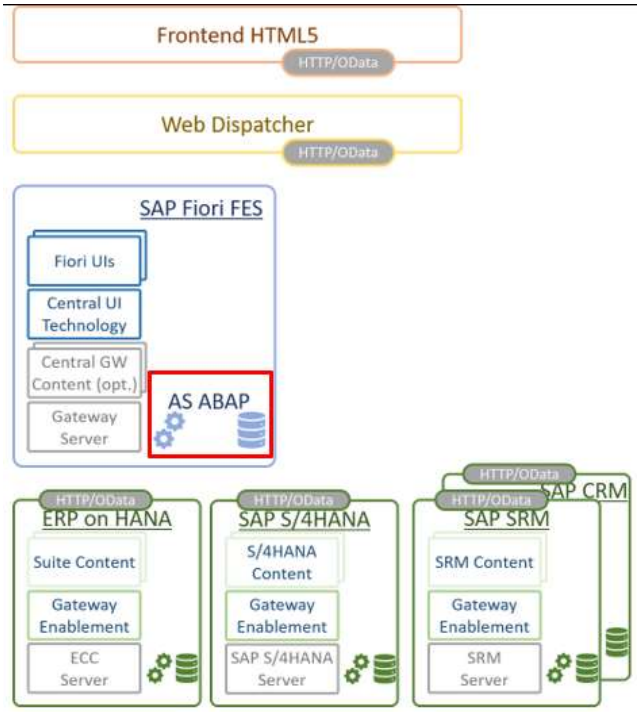
SAP Fiori front-end server (FES) offers a bundle of technology components that are required to run SAP Fiori scenarios. It contains the following:

- UI development toolkit for HTML5 (SAPUI5) framework and the components to run the SAP Fiori launchpad on the ABAP stack.
- SAP Gateway core components on the ABAP stack.
- SAP Fiori Implementation Foundation.
- SAP Fiori Basis Apps (available only with SAP NetWeaver 7.5 or higher).

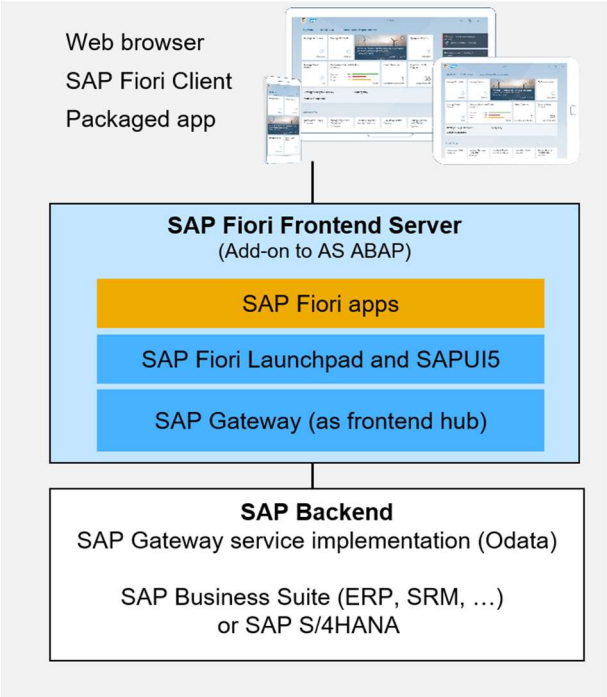
SAP Fiori FES does not provide any new technical components. It has been created to define the exact stacks required for SAP Fiori application versions and thereby simplify customer consumption.

end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT;

Express Mobile, Inc., Exhibit 2011
Page 2011 - 77
IPR2022-00597, Google LLC. v. Express Mobile, Inc.



https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT;



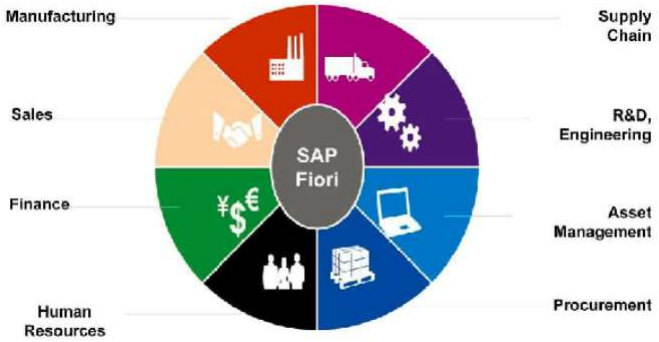
https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/.

150. Web services on Fiori include various role-based applications that may be integrated on the Fiori launchpad through "tiles." These applications provide business

management and operation web services to business customers, such as those relating to manufacturing, sales, finance, and human resources. https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm;

SAP Fiori is a new user experience (UX) for SAP software and applications. It provides a set of applications that are used in regular business functions like work approvals, financial apps, calculation apps and various self-service apps.

SAP Fiori provides 300+ role-based applications like HR, Manufacturing, finance, etc. When you open the SAP Fiori home page application, you will see a picture of the flowers. It is because Fiori means 'flowers' in Italian.



Intro

A tile is a container that represents an app on the SAP Fiori launchpad home page.

Tiles can display different types of content, which is based on data supplied by the app. They can contain an icon, a title, an informative text, KPIs, counters, and charts.

A **link** is a special representation of a tile. Links are displayed in a separate area below the tiles area and comprise a title and an optional subtitle. Most tile types can be converted to links, and links can be converted to tiles at any time.

Users can personalize their home page by selecting the tiles for the apps they want to use from the app finder. The apps available in the app finder depend on the user's role.

The number of visible tiles on the launchpad home page depends on the screen resolution. If the tiles in a group do not fit in one row, they are wrapped to the next row.

https://experience.sap.com/fiori-design-web/tile/.

151. In order to store and transmit data for the applications, Fiori employs JSON data to evoke web components for the applications, and to communicate inputs and outputs for the applications. JSON data comprise key/value pairs that are essentially symbolic names constituting

character strings with no persistent address or pointer.

https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20i

SAP UI5 is a Java script based framework that is used to design multi-platform business applications. It supports various data models and views do desktop and mobile applications. SAP UI5 compiles on open Ajax and can be combined with java script libraries.

SAP UI5 was initially named phoenix that was later changed to **SAP UI5** in 2011.

Key UI Technologies

- Web Dynpro ABAP and Floorplan manager tool can be used for creating new applications.
- SAP UI5 and UI5 application development tools to change adapt or develop new applications.
- SAP Dynpro is used to include Screen Personas for GUI optimization

s%20a%20Java,combined%20with%20java%20script%20libraries.;

Model-View-Controller Concept

MVC consists of three concepts. Views can be defined using different languages like Java Scripts, HTML. Controller is used to bound the Views and Models are used with Views.

Views – It can be defined using XML with HTM, mixed or standalone

- **XML** – (sap.ui.core.mvc.xmlview)
- **JavaScript** – (sap.ui.core.mvc.JSView)
- **JSON** – (sap.ui.core.mvc.JSONView)
- **HTML** – (sap.ui.core.mvc.HTMLView)

Controller – Controllers are bound to a view. It can also be used with multiple views

Model – Data binding can be used on the views.

https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20i

s%20a%20Java,combined%20with%20java%20script%20libraries.;

152. Each symbolic name has an associated data format class type corresponding to a subclass of UI objects that support the data format type of the symbolic name and has the preferred UI object. For example, in a Fiori launchpad website, tile objects are automatically clustered in groups that are listed in an anchor bar at the top of the website, the anchor bar being the preferred UI object. Alternatively, a user can choose to list the tile groups separately in different tab bars.

Anchor Bar and Tab Bar

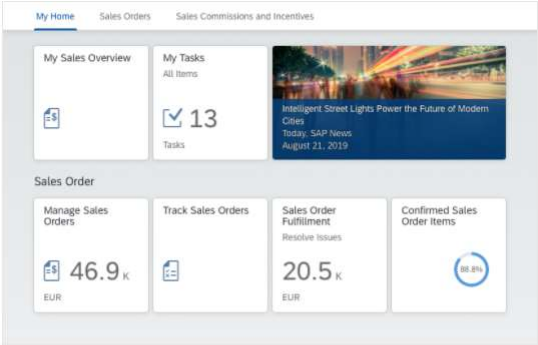
In the launchpad home page, tiles are usually clustered in groups. These groups are listed in an anchor bar or in a tab bar at the top of the page.

The anchor bar is the default setting. Optionally, users can choose the tab bar instead. Note: Both types are only shown when users have more than one group.

If you want to modify groups and tiles, select *Edit Home Page* from the user menu.

Anchor Bar

By default, all groups are displayed in the launchpad home page. These groups are listed in the anchor bar at the top of the page. When users select a group name, the page scrolls down to the selected group.

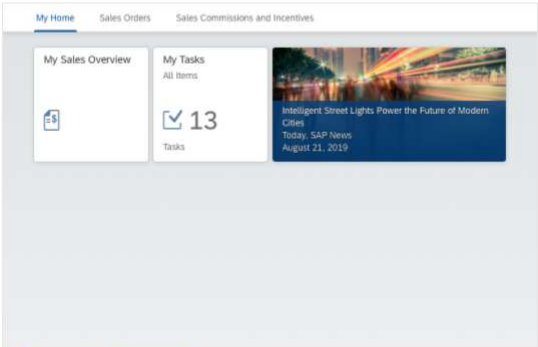


Launchpad home page with anchor bar - All groups at a glance

Tab Bar

When the tab bar is selected, the groups are separated into tabs. Only one group is displayed at a time.

While this functionality reduces the overview of all groups, it allows the user to focus on a selection of tiles and improves the performance for users with a large number groups.



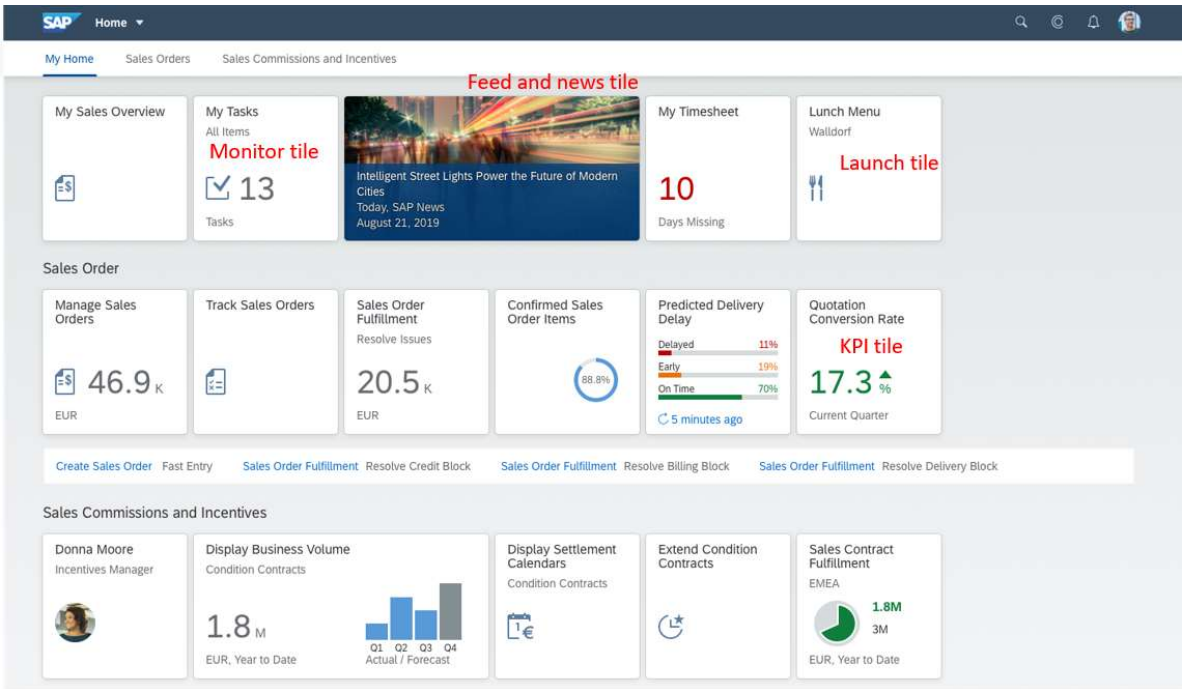
Launchpad home page with tab bar - First group selected

https://experience.sap.com/fiori-design-web/home-page/.

153. The computer memory where data for a Fiori launchpad website is stored also includes addresses for the web services where the input symbolic names and output symbolic names can be sent to and received from. For example, the screenshot below shows a Feed Tile that monitors RSS feeds and retrieves new articles based on an article refresh interval. On information and belief, the memory includes URL addresses of the web services providing the RSS feeds, such that the Feed Tile can request new articles from the web services according to user selected topics and display updates of the last feeds in a user selected cycle through rate. On information and belief, input symbolic names are associated with user-input topics, and output symbolic names are associated with the corresponding updates of feeds and news articles provided for the user-input topics.

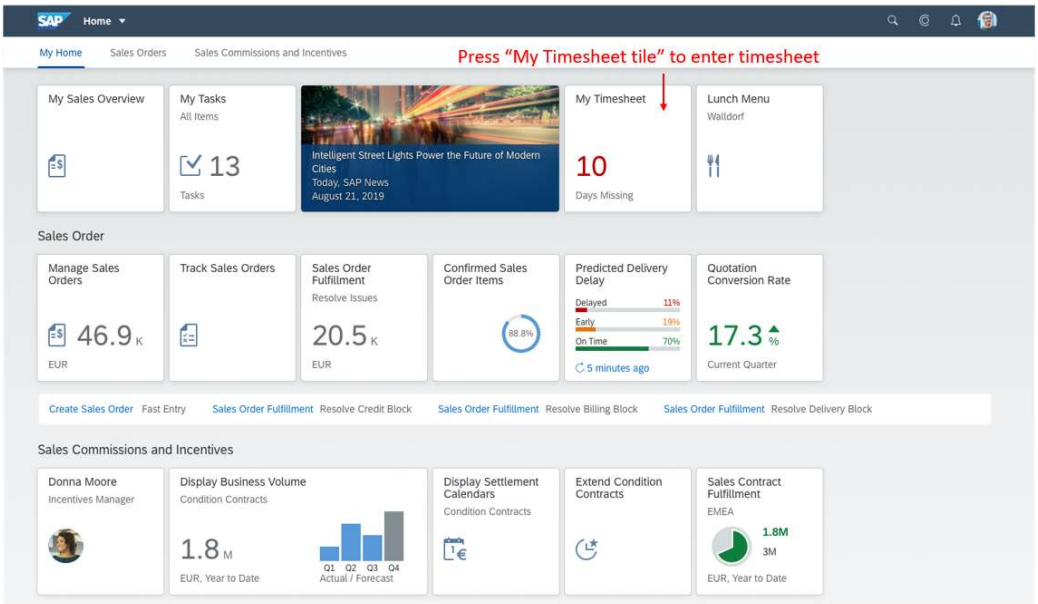
https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsFeedTile.

154. Fiori defines a UI object for presentation on the display, where the UI object corresponds to a web component included in the computer memory, and the web component is selected from a group consisting of an input or output for an application. By way of example, a Fiori launchpad website comprises different types of tile objects such as monitor tiles, Feed tiles, launch tiles, and KPI tiles. Each tile object can connect to a web component included in the computer memory. For example, the Feed tile can be associated with the RSS feeds and news web component, which can receive specific topics as inputs from users, and generates corresponding feeds and news updates as outputs to be displayed on the Feed tile according to the user-input topics.

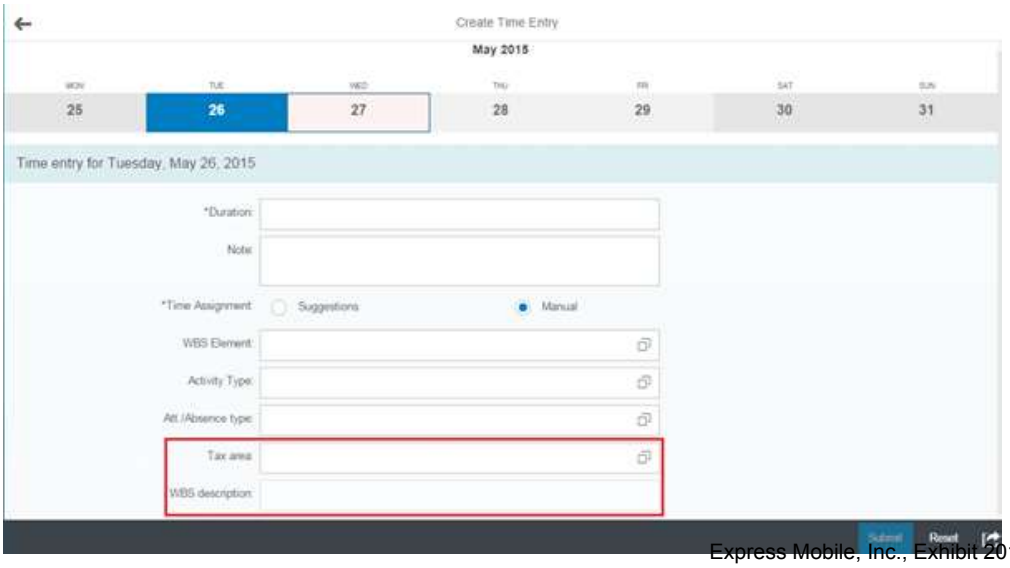


https://experience.sap.com/fiori-design-web/home-page/.

155. When a UI object is so defined, a symbolic name (e.g., JSON data) from the web component corresponding to the defined UI object is selected and associated with the defined UI object. The symbolic name is only available to UI objects that support the defined data format associated with that symbolic name. For example, as shown below, a user can click on the "My timesheet" tile to enter timesheet information by providing inputs such as text or clicks on a radio button object. Symbolic names associated with the text field objects and radio button object are only available when the user selects the "My timesheet" tile object.



https://experience.sap.com/fiori-design-web/home-page/;

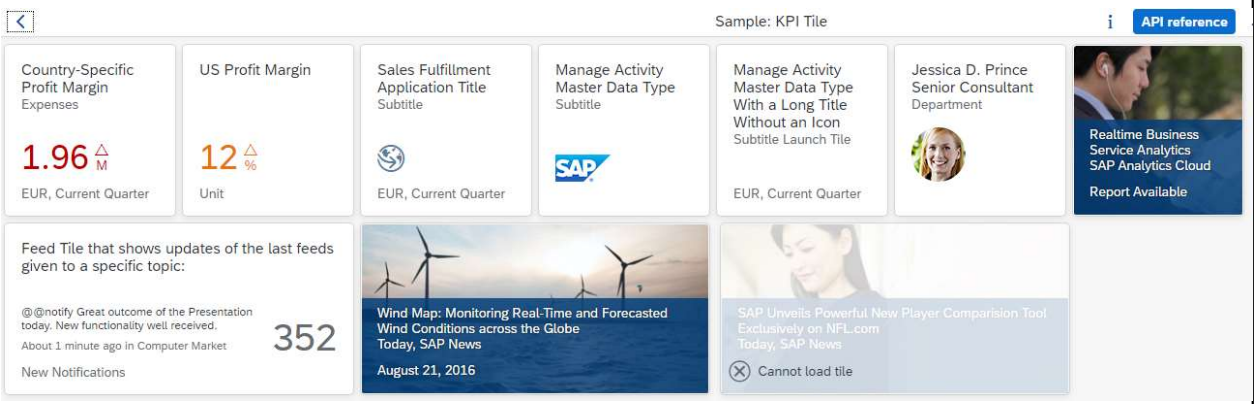


Express Mobile, Inc., Exhibit 2011
Page 2011 - 83
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

https://pasapas-sap-support.com/content/customizing-your-fiori-timesheet-app-without-coding.

156. Fiori stores information representative of the defined UI object and related settings (e.g., JSON data, along with standard HTML, CSS, and Javascript code) in the AS ABAP database described above. On information and belief, OData services use standard HTTP GET, PUT, POST, DELETE, and QUERY methods to query and update the stored information from the AS ABAP database.

157. To generate the launchpad website, Fiori retrieves the information for the UI objects stored in the AS ABAP database, and builds an application consisting of one or more web pages views from at least a portion of the database using the player. The player (e.g., a device-dependent code for a browser engine or operating system) then utilizes the data stored in the database to generate for the display at least a portion of a web page. In the example below, Fiori converts HTML, CSS, Javascript, JSON, and other files into an active launchpad website.



https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile;

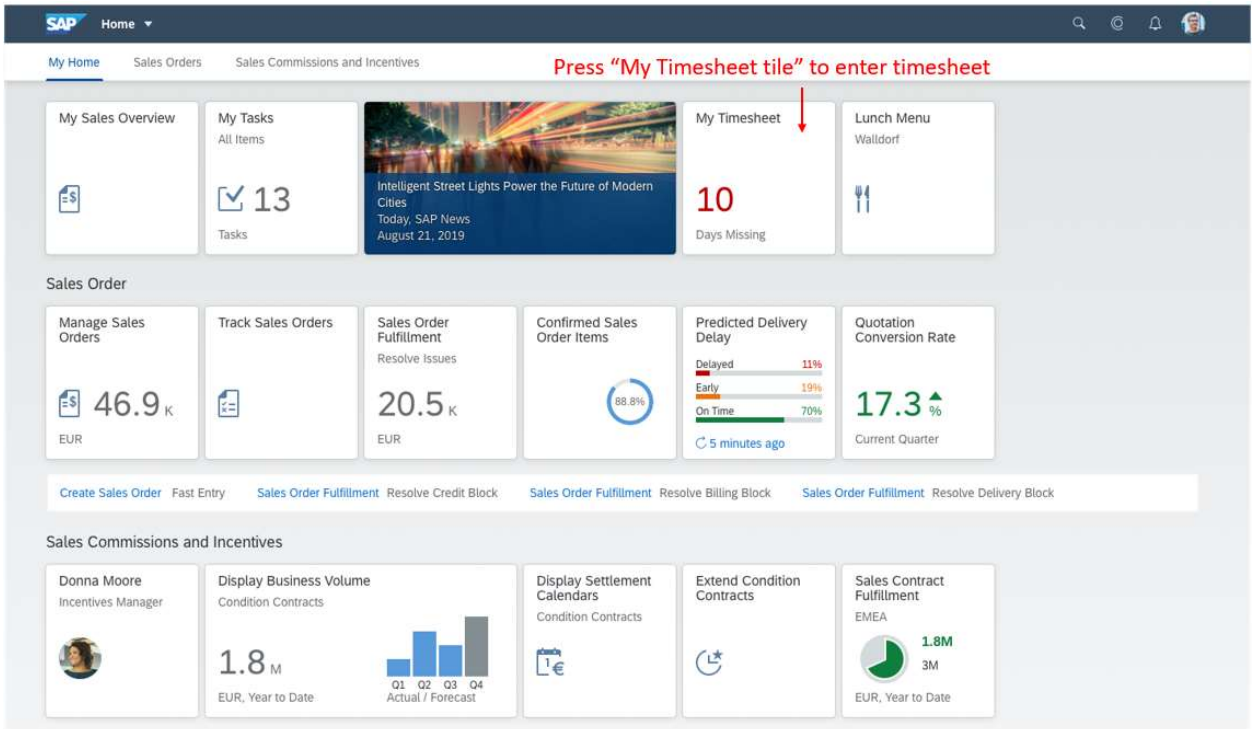
Code: KPI Tile

Page.view.xml | Page.controller.js | style.css | manifest.json

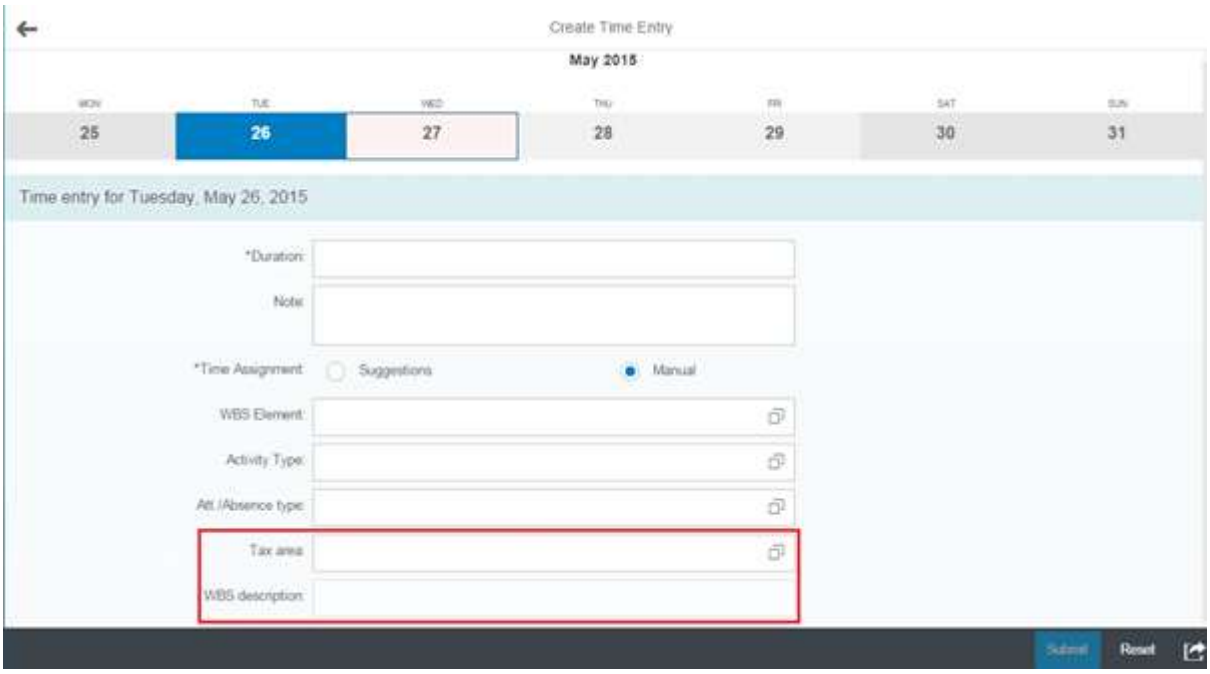
```
<mvc:View controllerName="sap.m.sample.GenericTileAsKPITile.Page" xmlns="sap.m" xmlns:mvc="sap.ui.core.mvc">
    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Country-Specific Profit Margin" subheader="Expenses" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter">
            <NumericContent scale="M" value="1.96" valueColor="Error" indicator="Up" withMargin="false" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="US Profit Margin" press="onPress">
        <TileContent unit="Unit">
            <NumericContent scale="%" value="12" valueColor="Critical" indicator="Up" withMargin="false" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Sales Fulfillment Application Title"
                 subheader="Subtitle" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter">
            <ImageContent src="sap-icon://home-share" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Manage Activity Master Data Type"
                 subheader="Subtitle" press="onPress">
        <TileContent>
            <ImageContent src="test-resources/sap/m/demokit/sample/GenericTileAsLaunchTile/images/SAPLogoLargeTile_28px_height.png" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Manage Activity Master Data Type With a Long Title Without an Icon"
                 subheader="Subtitle Launch Tile" mode="HeaderMode" press="onPress">
        <TileContent unit="EUR" footer="Current Quarter" />
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop tileLayout" header="Jessica D. Prince Senior Consultant"
                 subheader="Department" press="onPress">
        <TileContent>
            <ImageContent src="test-resources/sap/m/demokit/sample/GenericTileAsLaunchTile/images/ProfileImage_LargeGenTile.png" />
        </TileContent>
    </GenericTile>

    <GenericTile class="sapUiTinyMarginBegin sapUiTinyMarginTop"
                 backgroundImage="test-resources/sap/m/images/NewsImage1.png"
                 frameType="OneByOne" press="onPress">
        <TileContent footer="Report Available" frameType="OneByOne">
            <NewsContent
                    contentText="Realtime Business Service Analytics"
                    subheader="SAP Analytics Cloud" />
        </TileContent>
    </GenericTile>
```

https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile/code.

158. When the application and player are executed on the device, an input value can be provided by a user. The device then provides the input value and a corresponding input symbolic name to the web service, which in turn generates an output value and a corresponding symbolic name for the output. By way of example, a user can click on the "My Timesheet" tile as described above to enter information for a timesheet by providing inputs such as text or click on a radio button object.



https://experience.sap.com/fiori-design-web/home-page/;



https://pasapas-sap-support.com/content/customizing-your-fiori-timesheet-app-without-coding.

159. Symbolic names associated with the text field objects and radio button object are sent to SAP's back-end server with a simple HTTP request for an employee's timesheet web service. The timesheet web service then generates corresponding KPI values and timesheet

updates and transfers them to the Fiori front-end servers in the format of JSON dataset. A player then provides instructions to the display of the device to present the output value in the Timesheet tile. For example, the KPI values and timesheet updates are rendered by SAPUI5 in the front-end and converted into an active Timesheet tile for display.

160. The presence of the above referenced features is demonstrated, by way of example, by reference to publicly available information, including the following:

- https://www.sap.com/products/fiori.html,
- https://www.sap.com/documents/2019/08/d6431654-627d-0010-87a3-c30de2ffd8ff.html,
- https://experience.sap.com/fiori/,

https://experience.sap.com/fiori-design-web/home-page/,

- https://experience.sap.com/fiori-design-web/a-beginners-guide-to-the-design-guidelines/,
- https://experience.sap.com/fiori-design-web/tile/,
- https://experience.sap.com/fiori-design-web-versions-1-26-and-1-28/concept/tile/,
- https://experience.sap.com/fiori-design-web/smart-templates/,
- https://wiki.scn.sap.com/wiki/display/Fiori/SAP+Fiori+Front-end+Server#SAPFioriFrontendServer-WhatisFES?FES_INTRO_WHAT,
- https://help.sap.com/doc/abapdocu_752_index_htm/7.52/en-US/abenabap_sql.htm,
- https://help.sap.com/saphelp_em92/helpdata/en/58/e82251e8242514e10000000a44176d/frameset.htm,
- https://help.sap.com/doc/saphelp_nw74/7.4.16/en-US/ec/aeea50ca692309e10000000a445394/content.htm?no_cache=true,
- https://sapui5.hana.ondemand.com/,
- https://sapui5.hana.ondemand.com/#/topic/99ac68a5b1c3416ab5c84c99fefa250d,
- https://sapui5.hana.ondemand.com/#/entity/sap.m.GenericTile/sample/sap.m.sample.GenericTileAsKPITile,
- https://blogs.sap.com/2020/04/23/sap-ui5-vs-sap-fiori-elements-fe/,
- https://blogs.sap.com/2017/12/06/sap-fiori-front-end-server-in-a-nutshell/,
- https://blogs.sap.com/2019/07/30/fiori-elements-is-for-designers-and-product-managers-

Express Mobile, Inc., Exhibit 2011
Page 2011 - 87
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

not-just-developers/,

- https://www.youtube.com/watch?v=TCPuASmu1Js,
- https://www.youtube.com/watch?v=1zsNBm_Hddc&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=9,
- https://www.youtube.com/watch?v=S1LBoU17vcM&list=PLgbZwCTa4ZsIP-LhVQ8YTa_Yj12z9XmWH&index=7,
- https://www.youtube.com/watch?time_continue=42&v=Bxqa9Qc5vtI&feature=emb_logo,
- https://pasapas-sap-support.com/content/customizing-your-fiori-timesheet-app-without-coding,
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_introduction.htm, and
- https://www.tutorialspoint.com/sap_fiori/sap_fiori_ui5_concepts.htm#:~:text=SAP%20UI5%20is%20a%20Java,combined%20with%20java%20script%20libraries.

161. On information and belief, Defendants have had knowledge of the '044 patent and their infringement thereof at least as early as July 28, 2019, and no later than November 30, 2020, when Plaintiff provided notice of the '044 patent and Defendants' infringement of the '044 patent. Furthermore, Defendants have been aware of the '044 patent and their infringement thereof since at least the filing of this complaint.

162. On information and belief, Defendants have contributed and are contributing to the infringement of the '044 patent because Defendants know that the infringing aspects of the infringing products and services, including but not limited to the Accused Instrumentalities, are made for use in an infringement, and are not staple articles of commerce suitable for substantial non-infringing uses.

163. On information and belief, Defendants have induced and are inducing the infringement of the '044 patent, with knowledge of the '044 patent and that their acts, including without limitation using, offering to sell, selling within, and importing into the United States, the Accused Instrumentalities, would aid and abet and induce infringement by customers, clients, partners, developers, and end users of the foregoing.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 88
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

164. In particular, Defendants' actions that aid and abet others such as customers, clients, partners, developers, and end users to infringe include advertising and distributing the Accused Instrumentalities, and providing instructional materials, training, and other services regarding the Accused Instrumentalities. Defendants actively encourage the adoption of the Accused Instrumentalities and provide support sites for the vast network of developers working with the Accused Instrumentalities, emphasizing the user-friendly nature and diverse capabilities provided by the Accused Instrumentalities, explaining that Fiori "has redefined the way enterprise users work. With a new visual design and appearance, we are making work more delightful and are ready for the next-generation workforce," and "equips designers and developers with a set of tools and guidelines to create apps for any platform faster than ever – providing a consistent, innovative experience for both creators and users." (*See, e.g.*, https://www.sap.com/products/fiori.html.) On information and belief, Defendants have engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendants have had actual knowledge of the '044 patent and knowledge that their acts were inducing infringement of the '044 patent since at least the date Defendants received notice that their activities infringed the '044 patent.

165. Defendants' acts of infringement have caused damage to Plaintiff, and Plaintiff is entitled to recover damages from Defendants in an amount subject to proof at trial.

166. Defendants' infringement of Plaintiff's rights under the '044 patent will continue to damage Plaintiff's business, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

167. On information and belief, Defendants have acted with disregard of Plaintiff's patent rights, without any reasonable basis for doing so, and have willfully infringed and do willfully infringe the '044 patent.

168. The foregoing is illustrative of Defendants' infringement of the '044 patent. Plaintiff reserves the right to identify additional claims and Accused Instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for the following relief:

A. A judgment that U.S. Patent Nos. 6,546,397, 7,594,168, 9,063,755, 9,471,287, and 9,928,044 are valid and enforceable;

B. A judgment that Defendants have directly infringed, contributorily infringed, and/or induced the infringement of U.S. Patent Nos. 6,546,397, 7,594,168, 9,063,755, 9,471,287, and 9,928,044;

C. A judgment that Defendants' infringement of U.S. Patent Nos. 6,546,397, 7,594,168, 9,063,755, 9,471,287, and 9,928,044 has been willful;

D. An award of attorneys' fees incurred in prosecuting this action, on the basis that this is an exceptional case;

E. A judgment and order requiring Defendants to pay Plaintiff damages under 35 U.S.C. § 284, including supplemental damages for any continuing post-verdict infringement up until entry of the final judgment, with an accounting, as needed, and treble damages for willful infringement as provided by 35 U.S.C. § 284;

F. A judgment and order requiring Defendants to pay Plaintiff the costs of this action (including all disbursements);

G. A judgment and order requiring Defendants to pay Plaintiff pre-judgment and post-judgment interest on the damages awarded;

H. A judgment and order requiring that Plaintiff be awarded a compulsory ongoing license fee; and

///

///

///

///

///

///

I. Such other relief as the Court may deem just and proper.

Dated: December 1, 2020

Respectfully submitted,

s/ Ramon A. Miyar

Steven J. Rizzi (*pro hac vice* forthcoming)
Ramy Hanna (*pro hac vice* forthcoming)
Ryan A. Schmid (*pro hac vice* forthcoming)
Ramon A. Miyar

Attorneys for Plaintiff Express Mobile, Inc.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 91
IPR2022-00597, Google LLC. v. Express Mobile, Inc.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure and Civil L.R. 3-6(a), Express Mobile respectfully demands a trial by jury on all issues triable by Jury.

Dated: December 1, 2020

Respectfully submitted,

s/ Ramon A. Miyar

Steven J. Rizzi (*pro hac vice* forthcoming)
Ramy Hanna (*pro hac vice* forthcoming)
Ryan A. Schmid (*pro hac vice* forthcoming)
Ramon A. Miyar

Attorneys for Plaintiff Express Mobile, Inc.

Express Mobile, Inc., Exhibit 2011
Page 2011 - 92
IPR2022-00597, Google LLC. v. Express Mobile, Inc.