# 2023 Joint Committee on Ways & Means **Public Safety Subcommittee Presentation – Division of Child Support Budget Note Report**

March 2, 2023

Oregon Department of Justice

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## Oregon's child support system, Origin

DOJ Division of Child Support led a system modernization project spanning multiple biennia (2015–2021)

- Implemented a hybrid transfer solution
- Completed statewide implementation April 2019
- Received required mandatory certification December 2019
- Post-implementation operations and maintenance 2020
  - Covid pandemic impacts on transition and recruiting

### Joint Legislative Committee on Information Management & Technology – April 28, 2021

DOJ presented the project close-out report, highlighting:

- Project successes
- Objectives met
- Benefits realized
- Lessons learned
- Project challenges
- What's next
  - DOJ outlined key areas of continued planning for Origin



## **Budget Note**

Division of Child Support – Comprehensive plan, schedule, and budget that addresses all outstanding Child Support Enforcement Automated System issues (Emergency Board Item #33, September 2022)

**Comprehensive plan priorities** 

- Team capacity management and skill building 2021-27
- Ongoing operations and maintenance keeping Origin modern, secure, and connected – In progress
- Origin Framework Refactoring Project 2023-25
- Origin host migration planning 2023-25
- Ancillary child support systems 2023-27

### **Priorities Timeline**

|   |   |   |     | 2   | 0 | 2        | 3   | 8    |    |    |     |     | 2 | 2( | 0 | 2 | 4 | ŀ          |      |    |     |     |     | 2   | 0 | 2 | 25 | 5    |      |    |   |     |     | 2( | D | 2   | 6  | l  |              |     |   |   | 2 | C   | )2  | 27 | 7 |    |                    |
|---|---|---|-----|-----|---|----------|-----|------|----|----|-----|-----|---|----|---|---|---|------------|------|----|-----|-----|-----|-----|---|---|----|------|------|----|---|-----|-----|----|---|-----|----|----|--------------|-----|---|---|---|-----|-----|----|---|----|--------------------|
| Team Capacity<br>Management &<br>Skill Building<br>In progress – 2027 | 1 | 2 | 3 4 | 4 5 | 6 | 7        | 8 9 | 9 10 | 11 | 12 | 1 2 | 2 3 | 4 | 5  | 6 | 7 | 8 | 9 1(       | ) 11 | 12 | 1 : | 2 3 | 3 4 | 1 5 | 6 | 7 | 8  | 9 1( | 0 11 | 12 | 1 | 2 3 | 3 4 | 5  | 6 | 7 8 | 39 | 10 | 11 1:        | 2 1 | 2 | 3 | 4 | 5 6 | 5 7 | 8  | 9 | 10 | <u>11 12</u>       |
| Operations &<br>Maintenance<br>Ongoing                                | 1 | 2 | 3 4 | 4 5 | 6 | 7        | 8 9 | 9 10 | 11 | 12 | 1 2 | 2 3 | 4 |    |   |   |   | 9 1(<br>g: |      |    |     |     |     |     |   |   |    |      |      |    |   |     |     |    |   |     | 39 | 10 | 11 1:        | 2 1 | 2 | 3 | 4 | 5 6 | 5 7 | 8  | 9 | 10 | 11 12              |
| Origin Framework<br>Refactoring<br>Project<br>2023-2025               | 1 | 2 | 3 4 | 4 5 | 6 | 7        | 89  | 9 10 | 11 | 12 | 1 2 | 2 3 | 4 | 5  | 6 | 7 | 8 | 9 1(       | ) 11 | 12 | 1 : | 2   | 3 4 | 1 5 | 6 | 7 | 8  | 9 1( | 0 11 | 12 | 1 | 2 3 | 3 4 | 5  | 6 | 7 8 | 39 | 10 | 11 1:        | 2 1 | 2 | 3 | 4 | 5 6 | 5 7 | 8  | 9 | 10 | <mark>11 12</mark> |
| Migration<br>Project<br>2023-2027                                     | 1 | 2 | 3 4 | 4 5 |   | 7<br>Ori |     |      |    | -  |     |     |   |    |   |   | 8 | 9 1(       | ) 11 | 12 | 1   | 2 3 | 3 4 | 1 5 |   |   |    |      |      |    |   |     |     |    |   |     |    |    | 11 12<br>Req |     |   |   |   |     |     |    | 9 | 10 | 11 12              |
| Ancillary<br>Child Support<br>Systems<br>Ongoing                      | 1 | 2 | 3 4 | 4 5 | 6 | 7        | 89  | 9 10 | 11 | 12 | 12  | 2 3 | 4 | 5  | 6 | 7 | 8 | 9 1(       | ) 11 | 12 | 1   | 2   | 3 4 | 1 5 | 6 | 7 | 8  | 9 1( | 0 11 | 12 | 1 | 2 3 | 3 4 | 5  | 6 | 7 8 | 39 | 10 | 11 12        | 2 1 | 2 | 3 | 4 | 56  | 5 7 | 8  | 9 | 10 | 11 12              |

## **Estimated Plan Budget Summary**

#### 2023 Policy Packages

| <u>t Budget</u> |
|-----------------|
| GF              |
| FF              |
|                 |
| GF              |
| FF              |
|                 |
| GF              |
| FF              |
|                 |

#### Policy Package – Future Biennium

Origin migration 2020 cost estimates, depending on the option chosen, ranged from \$2,687,947 to \$4,183,227 for one-time migration project costs including DOJ staff and vendor costs.

### Team capacity management and skill-building

### Origin technology team background

- Child support system project: 2015–2021
  - 6 technology team members and 1 manager supported the legacy system
  - 7 technology team members and 1 manager assisted with development of new system (Limited Duration project positions)
- During 2019-21 legislative session in anticipation of the project ending, DOJ submitted POP 452 and received approval for 12 FTE for IS
- Today's child support technology services team is composed of 25 FTE
  - 2 managers and 23 team members supporting distinct areas of Origin
  - Security, middleware, database administration, application development, release management, batch operations

### Team capacity management and skill-building

### **Origin technology team status**

- Recruiting
  - Final vacancy filled January 2023
  - Retirements: 20% of team eligible to retire within 5 years (next retirement May 2023)
- Team maturity
  - Some team members hired as underfilled
  - Nearly 50% of the team hired within the past 18 months
- Need for ongoing vendor support
  - Package 471 Origin Operations and Maintenance Agency Request Budget \$2,304,865 GF + \$4,474,149 FF

### Team capacity management and skill-building

Schedule: In progress, July 2021 – June 2027

**Origin technology team – Skill-building** 

- Training needs assessment
- Continued knowledge sharing with Deloitte team members
- Time in their current role
- Purchased Udemy training licenses
- Implemented capacity management and build cadence
- Procuring Angular training

### **Origin Operations and Maintenance** Keeping Origin modern, secure, and connected

- Schedule In progress
- Origin Infrastructure
- Infrastructure maintenance
  - Yearly renewal of Secure Sockets Layer (SSL) certificates
  - Operating system upgrades Microsoft 2012 R2 to 2019

Origin Software

- Origin is supported by a suite of software
- Suite of software with regular updates, patches, CVE mitigation
  - Weekly patching schedule

# Origin software, frameworks, tools

- Cisco AppDynamics Controller
- Cisco AppDynamics .Net Agent
- Cisco AppDynamics Java Agent
- Cisco AppDynamics Machine Agent
- IBM Content Navigator
- IBM Content Manager
- IBM Cognos Analytics
- IBM InfoSphere Information Server
- IBM MQ
- IBM WebSphere Application
  Server ND
- IBM WebSphere Application Server StandAlone
- IBM WebSphere Application Server Liberty
- IBM HTTP Server
- IBM Tivoli Workload Scheduler (TWS)

- IBM BigFix Enterprise
- IBM License Metric Tool (ILMT)
- IBM Security Access Manager
- IBM Rational Collaborative
  Lifecycle Management
- IBM DMC
- IBM DB2
- IBM DB2 Client
- IBM Java SDK
- Liquidbase
- MySQL OpenText Empower & PDF-Preview (TomEE++)
- OpenText Exstream Engine (.NET)
- OpenText Design Manager
- SonarQube
- PostqreSQL
- Quest Toad for DB2
- SQL Server

- SQL Server Management Studio
- Hibernate
- Struts
- Spring
- EJB
- Log4J
- Struts Menu
- Angular
- NodeJS
- Bootstrap
- JMeter
- USPS
- MyEclipse Blue
- OpenSSL
- ANT
- GRNDS
- Postman
- Agent Ransack
- Notepad++

### **Origin Operations and Maintenance** Keeping Origin modern, secure, and connected

**Origin Licensing and Support** 

- Yearly software licensing renewals
  - Cost increases year over year
  - Mandatory upgrades DB2 database licensing
  - Package 473 Origin Hosting and Software Licensing
    - \$749,450 GF
    - \$1,454,815 FF

Origin Operations

- Batch operations backbone of the system
  - Batch optimization
  - Interrupting the business
- Development of an automated regression testing suite

### **Origin Operations and Maintenance** Keeping Origin modern, secure, and connected

Change Requests: Child support program portfolio of projects that require changes in Origin

- Legislative implementation
- Child support guidelines review project (federal requirement)
- IV-D paternity establishment (federal performance measure)
- Other agency projects
  - OLCC: Phase 1 in progress, Phase 2 June 2023, Phase 3 February 2024
  - OED: Phase 2 Paid Leave Oregon in progress, Phase 3 Unemployment Insurance design August 2023
  - SAIF: Testing February 2023
  - ODHS / OHA Public Health Division: Date to be determined
  - Consortium of licensing agencies (e.g., DEQ, Construction Contractors Board, Oregon Board of Optometry, Oregon Real Estate Agency): Dates to be determined

# **Origin Framework Refactoring Project**

Schedule – Currently in the planning phase – projected completion date end of 2024

Replacing an end-of-life framework

- Resulted in an IRS audit finding due to unsupported software
- DAS EIS recommends project oversight Level 2
- Stage Gate 2 procuring independent Quality Management Services
- Package 472 Agency Request Budget
  - \$2,529,600 GF
  - \$4,910,400 FF

# **Origin Framework Refactoring Project**

| Origin Framework Refactoring Project - Estimated Timeline |                 |               |               |                 |          |  |              |               |              |                |                |               |               |               |               |                |               |               |              |           |         |
|---|-----------------|---------------|---------------|-----------------|----------|--|--------------|---------------|--------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|--------------|-----------|---------|
| T-2 Months  | Month 1         | Month 2       | Month 3       | Month 4         | Month 5  | Month 6                                  | Month 7      | Month 8       | Month 9      | Month 10       | Month 11       | Month 12      | Month 13      | Month 14      | Month 15      | Month 16       | Month 17      | Month 18      | Month 19     | Month 20  | Month   |
| rep & Project Approval                                    |                 |               |               |                 |          |  |              |               |              |                |                |               |               |               |               |                |               |               |              |           |         |
|   | Procurement (Ar | mend existing | g Origin Supp | oort Services C | ontract) |  |              |               |              |                |                |               |               |               |               |                |               |               |              |           |         |
|   | Con             | tract/SLA/Su  | pport Plan D  | )evelopment     |          |  |              |               |              |                |                |               |               |               |               |                |               |               |              |           |         |
|   |                 |               |               |                 |          | Change Request/Defect resolutions frozen |              |               |              |                |                |               |               |               |               |                |               |               |              |           |         |
|   |                 |               |               |                 |          | Desig                                    | gn           |               |              |                |                |               |               |               |               |                |               |               |              |           |         |
|   |                 |               |               |                 |          | Framew                                   | vork Develop | oment         | Right Size   |                |                |               |               |               |               |                |               |               |              |           |         |
|   |                 |               |               |                 |          |  |              | Security Test |              |                | Application D  | evelopment (  | CR Stream)    |               |               |                |               |               |              |           |         |
|   |                 |               |               |                 |          |  |              |               |              |                |                | System Inte   | gration Test  | ing (DEVI)    |               |                |               |               |              |           |         |
|   |                 |               |               |                 |          |  |              |               |              |                |                |               |               |               | Security Test | User Acce      | ptance Testir | ng (UATE)     |              |           |         |
|   |                 |               |               |                 |          |  |              | De            | cumentation  | Developmer     | t, Updates, Re | view/Knowle   | dge Transfer, | /Collaboratio | n             |                |               | Security Test | Go-Live Prod |           |         |
|   |                 |               |               |                 |          |  |              |               | Security Tes | ting (code rev | iew, hardenin  | g and configu | ration review | , penetration | and vulnerab  | ility testing) |               |               |              |           |         |
|   |                 |               |               |                 |          |  |              |               |              |                |                |               |               |               |               |                |               |               |              | Project C | loseout |

# **Origin hosting migration planning**

Schedule – Plan migration 2023-25

- Aligns with DOJ Information Services Strategic Technology Plan
- Will require an updated cost-benefit analysis and business case
- Estimated migration project timeline approximately 18 months
- Migration costs (2020 estimates) \$2,687,947 \$4,183,227
- Will require Policy Option Package in 2025-27
- Will require Stage Gate oversight

# Ancillary child support systems

#### Schedule - 2025-27

Origin is the *largest* system but not the *only* system

- Child support has eight ancillary systems that support child support operations
  - Employer Services Portal
  - Central imaging system ibml
  - OCSE state services portal
  - Oregon Child Support Program website
  - Child Support Central intranet
  - Child support payment portal and kiosks
  - District Attorney staff virtual desktops
  - Cyberfusion
- Each of these systems require ongoing support and upgrading